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Annual Progress report of forest administration 31st March 1883

Year: 1883

Sub: Forests/ Annual Report

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CENTRAL CIRCLE REPORT.

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CENTRAL CIRCLE.

N.-W. PROVINCES AND OUDH.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION
FOR THE YEAR ENDING 31st MARCH, 1883.

By G. Greig, Esq., Conservator of Forests, Central Circle.

INTRODUCTION.

DIVISIONS AND OFFICERS IN CHARGE.

The following table shows the divisions of the Central Circle and the Officers who had charge of them at the commencement and at the close of the year :—

Mr. G. Greig held the post of Conservator throughout the year.

Divisions.	Names of Officers in charge.	
	At commencement of the year.	At close of the year.
Naini Tal ...	Mr. Braidwood, Deputy Conservator, 4th grade.	Mr. Braidwood.
Ránikhet ...	Mr. Brereton, Deputy Conservator, 2nd grade.	Mr. Braidwood (in addition to his other duties)
Kumaun ...	Mr. O'Callaghan, Deputy Conservator, 1st grade.	Mr. O'Callaghan.
Garhwál ...	Mr. O Greig, Assistant Conservator, 1st grade.	Mr. Bryant.
Ganges ...	Mr. Wilmot, Deputy Conservator, 4th grade.	Mr. Hobart-Hampden, Assistant Conservator, 3rd grade.
Jhánsi ...	Mr. Dese, C S.	Mr. Williams, C.S.
Lalitpur ...	Mr. Story, Assistant Commissioner ...	Mr Story.
Bánda ...	Mr. LaTouche, C.S.	Mr. Hoey, C.S.

From the above it will be observed that the first five divisions are under charge of Officers of the Forest Department and the three latter under charge of the District Civil Officers.

CHANGES OF GAZETTED OFFICERS.

2. Towards the end of May, 1882, Mr. O. Greig left on 5½ months' sick leave, and Mr. O'Callaghan took charge of the Garhwál division in addition to his other duties. The Home Medical Board granted Mr. O. Greig an extension of three months, and when that expired he retired from the service. Consequent on his extension of leave Mr. Bryant was placed in charge of the Garhwál division in November (the commencement of the working season), and Mr. Braidwood then took charge of the Ránikhet division in addition to his other duties. Mr Wilmot took 18 months' furlough from the beginning of May, 1882. Mr. Brereton then took charge of the Ganges division, and Mr. Bryant (from the School Circle) was placed in charge of the Ránikhet division. In February, 1883, Mr. Brereton got ill and was granted one year's sick leave. Mr. Hobart-Hampden was then sent from the School Circle and placed in charge of the Ganges division.

SHORT DESCRIPTIONS OF DIVISIONS AND MODE OF WORKING.

3. **Naini Tal division.**—The Naini Tal division forests are on the steep hills surrounding the settlement of Naini Tal, and range in elevation from 2,500 to 8,500 feet. The principal trees are oaks of five kinds (quercus incana, dilatata, semecarpifolia, danuginosa, and annulata,) and the common pine (pinus longifolia). Close around the Naini Tal basin cypress (cupressus torulosa) is common, and various other trees,

such as maple, ash, birch, alder, poplar, hornbeam, rhododendron, ayar, and many others are found in the forests. The pine (vern. chír) is the tree used for building-timber in Naini Tal. The timber is prepared departmentally and stored in an iron-roofed shed, which has been erected within municipal bounds on the Ránikhet road.

Oak, refuse from chír sowings, and many other kinds of trees are used as fire-wood. Firewood for the Commissariat Department is prepared and delivered by the Forest Department. Residents and bazars are supplied by jhampannies and coolies, who, on payment of 8 annas, obtain monthly passes from the Forest Officer, which entitle them to collect fallen wood wherever they find it. They are not allowed to cut wood from a standing tree, whether dead or green, unless it has been marked by the Forester. In order to maintain a constant supply of firewood for residents and bazars, and also to preserve the beauty of the forests within easy sight of the roads most frequented by residents, no extensive fellings are made within a certain distance of Naini Tal. These beautiful forests had been most cruelly hacked before they were regularly taken in hand by the Forest Department, and it will take a great many years to thoroughly re-stock them. Whole slopes of pine trees were mowed down for potato cultivation, charcoal and lime-burning and firewood; two or three crops of potatoes were obtained, and by that time all humus had been washed away by the rain (there was no attempt at terracing), leaving the hill-side a barren slope of cold red clay. In those days, too, the forests were regularly burnt every year and all seedlings destroyed. It was the duty of the Forest Department to rectify this, and it has been rectified.

Fire-protection has been eminently successful and the forests are fast becoming fairly-well stocked with young growth. All potato cultivation has ceased, and the unsightly blanks have been planted up with oak, deodar, walnut, horse-chestnut, and ash; lime and charcoal-burning is permitted only to a very limited extent, and trees to be felled are carefully selected by the Forest Officer.

These forests are "Protected" and heavily burdened with rights. For this reason they cannot, of course, be expected to become thoroughly re-stocked as soon as if they were "Reserved" and free of rights.

Nor, under the present arrangement, can they ever be expected to yield much profit, for timber is supplied at rates which only just cover expenses; no royalty is taken from residents for grass or grazing; the 8-anna monthly wood ticket is an extremely low rate when you consider that it covers from 30 to 40 maunds of wood, and the revenue from grazing dues and squatters' huts will now, by recent orders, be almost *nil*.

4. **Ránikhet division.**—The Ránikhet division forests are on the hills around Ránikhet and Chaubattia, and range in elevation from about 4,000 to 7,000 feet. These hills are of a much easier gradient than those at Naini Tal. The principal trees are chír (pinus longifolia), the common oak (quercus incana), and rhododendron. There are also a few alder, ayar, hornbeam, quercus annulata, &c.

Chír is by far the most plentiful: it is the only wood used for building, and it also yields the main portion of the fuel. The timber trees are sold standing at rates varying according to girth measurement. The branches and refuse wood from these, together with windfalls, deformed trees, and stumps, are cut up into short lengths by the Forest Department and delivered to the Commissariat Department at their Ránikhet and Chaubattia depôts as fuel for the use of the troops. Residents are supplied with fuel from the extensive cantonment forests. The forests of this Division are all "Protected," with the exception of one "Reserved" forest, which covers an area of about 7 square miles.

Three small plots, aggregating about two square miles, in the protected forests of Ganiadeoli, Kathalek, and Sheoni, are "closed" under section 29 of the Forest Act, and, including the closed plots, about 11 square miles of the protected forests are now preserved from fire. The protected forests are heavily burdened with village rights for

wood and grazing, &c., and consequently the reproduction is poor. Fire-conservancy will, no doubt, benefit the reproduction to some extent, but if a third regiment is quartered at Ránikhet, it will be necessary to "close" a larger area.

The "Reserved" forest is free of all rights and has been protected from fire for the last 8 or 9 years. It is very enjoyable to take a walk in this forest now, and to compare it with what it was a few years ago and what most of the "Protected" forests still are. The slopes are beautifully covered with a thick coating of fir spines and leaves, which keeps the ground cool and gives nourishment to the thousands of healthy little seedlings which are springing up on every side. All blanks—and there were *many*—have been planted up and the forest is now in a fair way to become one of the best of its kind in India. A fire in this forest would do an incalculable amount of damage, and it would burn at any time of the year after a few sunny days owing to the thick coating of fir spines and dead leaves. It has been deemed necessary to open it for soldiers to shoot over from the 1st September to the 31st December, commencing from 1883. It is to be hoped that this will not lead to accidents, for it is the forest on which the supply of wood for Ránikhet must mainly depend, and it would be a thousand pities if any portion of it got burnt. At Ránikhet the Forest Department has a large nursery and orchard from which thousands of fruit and forest trees are distributed gratis, and it also supplies the Department with young trees for planting up blanks in the forest both at Ránikhet and Naini Tal. The cost of keeping up this garden is borne by the Ránikhet division, and this, combined with the low rates at which standing trees are sold, sufficiently explains why no large surplus can be expected.

An enumeration valuation of the "Reserved" forest and of a portion of the "Protected" forests of this division has been made by the Working-plan division, and the working-plan is in course of preparation. At present we are working on the lines of the Inspector-General's memorandum, dated 18th April, 1881,—see pages 147 to 154 of Suggestions regarding Forest Administration in the North-Western Provinces and Oudh, by D. Brandis, F.R.S., C.I.E., dated 1st November, 1881.

5. **Kumaun division.**—The forests of the Kumaun division are situated chiefly on the outer ranges of the Himaláyas, and partly on the undulating ground between the foot of the hills and the Tarái district. They extend from the Garhwál district on the west to the Sárda river on the east. The area (estimated at 636 square miles) is approximately divided as follows:—

Sál forest	...	...	...	...	233	square miles.
Mixed sál and other kinds	...	...	...		172	" "
Inferior kinds of trees	...	...	...		110	" "
Grassy savannahs and plateaus		...	...		120	" "

With the exception of about 50 square miles in the Chaubhainsi and Talla Des ranges in Eastern Kumaun all the sál forests have been more or less *worked over* in former times, though not in many cases *worked out;* and as these forests are now fairly complete with young growth (the result of fire-conservancy and systematic management) the time has arrived for removing mature and deformed trees, wherever they can be spared, by selection fellings. Timber works are carried on in Eastern and Western Kumaun in accordance with the plan of operations laid down in the Inspector-General's Suggestions above-mentioned, pages 51 to 70. The depôt for Eastern Kumaun is Chorgalia, and for Western Kumaun, Ramnagar.

The following brief description of the system in vogue in Kumaun may perhaps be of interest. The compartments to be felled during the following working season are carefully inspected by the Divisional Officer and all sál trees which may be felled are marked by him and his subordinates. A cart road is then constructed to tap the compartment (a compartment is generally a basin, or branch of a main valley) and branch roads are made from it wherever necessary. As an illustration of this, see page 68 of the Inspector-General's Suggestions and the sketch map.

During the first season's operations *logs* are removed by departmental agency and carried to depôt. During the second season *beams and scantlings* are prepared departmentally and carried to depôt. During the third season merchants are invited to convert and export, in the shape of logs, beams, and fair-sized scantlings, any timber which was not considered worth conversion and removal by departmental agency. And during the fourth season petty merchants convert and export all rejected trees and refuse wood in the form of sides and ends of bedsteads and stools, &c. There is a fixed rate of royalty on all the different kinds and sizes of wood exported, which is taken from the exporters at the khám tahsíl revenue-collecting stations. During these operations none but *marked* trees are allowed to be felled. As soon as all work in a compartment has ceased, it is cleared of creepers and protected from fire. Generally, though, it has been under fire-conservancy for some years previous to felling.

Eighty thousand cubic feet of sál (50,000 in Eastern and 30,000 in Western Kumaun) may be felled in this division annually according to the working-plan, and other kinds of trees may be sold freely on demand; but there is very little demand for them. Of the 233 square miles of sál forest, timber operations have been brought to a close in about 35 square miles—that is, that there will be no more felling in that area until the next rotation.

As from one to one and a-half lakhs of revenue is collected through the khám tahsíl (head A.II.) annually in this division, it is necessary to give a brief description of the system.

Before the commencement of every working season (November to June), a notice is widely circulated by the Forest Officer, giving a list of the rates of royalty which will be levied during the ensuing season on all the different kinds of produce which are allowed to be exported from the forests. Copies of this list are posted up at all the revenue-collecting and check stations, to enable exporters to see that they are not cheated.

As close as possible along the southern boundary of the forests revenue-collecting stations (called khám tahsíl or amdani chauki) are established on all main roads leading from the forests to the plains, and some way below this line of stations (from 3 to 8 miles) is the line of check stations (called partal chauki) so arranged as to intercept all exports.

There are many details which cannot be given in this brief account, but, broadly speaking, the system works thus :—

An exporter arrives at a khám tahsíl chauki with several cartloads of dry timber of sorts, bamboos, &c., &c. The Munshi in charge of the chauki counts the bamboos and measures the wood, and then, with the aid of his lists of rates, makes out the exporter's account, receives payment, and then gives the man a pass (rawanna) on printed form showing the amount of each kind of produce exported and the payment taken for each kind, keeping a copy of the pass on the counterfoil in his book. The exporter then drives on till he comes to the partal chauki. The man in charge of the partal chauki compares the exports with the rawanna, and if he finds all correct, takes the rawanna and gives, in its stead, a different kind of pass (also on printed form) called a musanna. The exporter then proceeds on his way.

As a check on the man in charge of chaukis there is a superintendent of khám tahsíl with a sufficient staff of deputies (three for Kumaun), whose duty it is to be constantly on the move, to compare exports with passes, to see that exporters are not delayed or bullied at chaukis, and to visit all chaukis frequently and examine the register books. This system is most thoroughly well suited to the Kumaun, Garhwál and Ganges divisions, for the exports all go in one direction, and the outlets are limited and easily controlled. A great tax on the Kumaun forests is the annual free grant of 200 mature sál trees to the Nawáb of Rampur.

Over 150 square miles of sál forest in this division are under fire-protection.

6. **Garhwál division.**—The forests of the Garhwál division are similarly situated to those of Kumaun ; they are chiefly on the outer ranges of the Himaláyas and partly on the undulating ground outside the hills. With the exception of the southern slopes of the outer range, sál is the dominant tree of the forests of this division. Sometimes it is almost pure, but, generally, it is mixed with sein, bakli, sandan and other trees.

The area of the division is about 440 square miles, of which it has been estimated that about 270 square miles are sál forests more or less mixed. As soon as the new Forest Survey Department maps are completed it will be possible to prepare a more correct estimate. All the more accessible sál forests of this division have been heavily felled in former years, and fellings are now confined to the North Patli Dún range, which covers an area of between 79 and 80 square miles. The inaccessible portions of the forests of this range, such as the Adnala, Khakasgadi, and Maulia basins, and also the forests near the head-waters of most of the other streams, have been worked either not at all or only to a small extent. The area of these unworked portions is probably about 30 square miles. The forests are now being worked in strict accordance with the working-plan described at pages 75 to 86 of the Inspector-General's Suggestions, dated 1st November, 1881. 50,000 cubic feet of sál may be cut annually, and as much sein, sandan, bakli, &c., as we can dispose of. During the three years of working 2,461 acres have been felled over.

There are no timber operations in this division conducted by departmental agency as in Kumaun. Trees are marked by the Forest Department staff ; merchants are allowed to fell and convert them as they please, and a fixed royalty is levied on exports at the khám tahsíl chauki. This system was commenced on a small scale, as an experiment, in 1880-81, was further developed in 1881-82, and in 1882-83 was so fully established that a little over 50,000 cubic feet of sál timber and nearly 5,000 cubic feet of sein were exported. In my opinion this system is preferable in every way to the departmental agency system. It is the system which prevails in the more civilized European countries, except that there the trees are sold standing at computed rates, whereas here we take a fixed royalty on each piece. Our plan leaves no room for speculation, and it costs nothing, for the royalty is collected by the staff which must be entertained to collect the revenue on minor forest products. Besides this, merchants in the timber trade are in a better position to know the market requirements than forest officers, and this system gives them the opportunity of preparing the kinds of timber most in demand. It also saves the cost of depôt establishment and avoids the risk of an accumulated stock deteriorating by remaining in depôt unsold. It gives the Divisional Officer more time to attend to other work, it stimulates trade, and it supplies the wants of the country better than the depôt system. It was commenced in the *Garhwál* division because, from its being rather an out-of-the-way place, the depôt timber did not sell very readily or fetch very good prices, and carts were not easily procurable for conveying the timber from the forests to the depôts. Next season I hope to see the same system adopted in Eastern Kumaun. All dry wood, bamboos, and other minor forest produce is exported on the khám tahsíl system in exactly the same manner as in the Kumaun division.

Fire-conservancy extends over about 177 square miles.

7. **Ganges division.**—The Ganges division comprises about (*a*) 204 square miles of forest on the outer ranges of the Himaláyas and on undulating ground at their base ; and (*b*) the portion of the leased forests of Native Garhwál to the east of the watershed between the rivers Bhagirathi and Jumna, the area of which is not known. (*a*), which may be called the Bhábar forests, lie between the Koh river (the western boundary of the Garhwál division) and the Ganges. To the west of the Koh the hills change in character. In the Garhwál division and in the western portion of Kumaun there are three distinct ranges of Sewalic formation which are more or less forested with sál ; but west of the Koh you lose the Sewalics altogether for about 20 miles, and then come again on a small block of them extending for about 8 miles east

of the Ganges. Dr. Brandis ascribes the absence of extensive sál forests in this part of the outer hills to the fact that there is a high range, rising to 4,000 feet, which, in a straight line, is not more than five miles distant from the foot of the hills. Hence the valleys are mostly deep, narrow, and moist, and hence the scarcity of sál.

It is impossible to estimate the area of sál forest here at all correctly, for it is so irregularly scattered about in small patches wherever dry open slopes occur, but probably there are not more than 10 square miles in all, if so much; and it had been so heavily felled before the advent of the Forest Department, owing to its proximity to the Ganges, that now there are no sál trees fit to fell. As evidence of this, it may be mentioned that all the timber for the rest-house which has recently been built at Chila (on the left bank of the Ganges) had to be brought from the Garhwál division. The timber works in this division are confined to fellings of second-rate kinds of trees, which are sawn up only on indents (such wood will not bear storage), and to supplying a certain amount of poles to the irrigation Department for the head-works of the main Ganges canal.

As a set-off against the deficiency of valuable timber, there is a plentiful supply of bamboos, which yield a large revenue. These and other minor produce are exported on the khám tahsíl system as in Kumaun and Garhwál.

About 16 square miles of the Bhábar forests are under fire-conservancy.

The area of (*b*), the leased forests, is not known, but the most important portions of them are some 14 square miles of deodar below Gangutri, which has been demarcated and reserved, and several small scattered plots of box. There are large areas of fine forests of pinus longifólia on the Bhagirathi and Bhilling rivers and their tributaries, which could be easily worked if a demand arose for pine timber. Two consignments of boxwood have been sent to England, and probably another consignment will be sent this year. Some deodar trees have been recently sold to Mr F. Wilson at the rate of Rs. 15 per tree. Several lakhs of deodar sleepers have been supplied to State Railways from these forests; the work was done, and *very well* done, by Mr. F. Wilson, the Government contractor.

The lease of these forests expires in June, 1874, and the question of its renewal is now under the consideration of Government.

8. The above-mentioned divisions are under charge of Officers of the Forest Department, but the three following are managed by the District Officers under the control of the Conservator :—

9. **Jhánsi division.**—The forests of the Jhánsi division cover an area of about 38 square miles. They are "reserved." A large portion of this area is hardly worthy of the name of forest, being merely waste raviny land with a few scrubby bushes growing on it.

The principal forest is Sukwan Dukwan, in the Jhánsi parganah, covering an area of about 2½ square miles.

It is estimated that about 2,000 acres of the whole 38 square miles contain fairly good forest, but only about 500 acres produce small scantlings fit for building purposes, and beams are not obtainable. The trees are the same as found in the Lalitpur forests, but bamboos are scarce. The Deputy Commissioner in charge considers the forests too insignificant for the "elaborate system of tabular statements and report applicable to tracts productive enough to justify technical and costly management." He thinks that, were he relieved of this, he would be able to look after the forests "more efficiently than is at present possible, the amount of time devoted to the preparation of returns (35 every month) and reports being out of all proportion with the real importance of the subject-matter."

10. **Lalitpur division.**—The Lalitpur forests cover an area of nearly 150 square miles, of which 144 are "reserved" and nearly 4 "protected."

With the exception of four fair-sized compact blocks the forests are considerably scattered, but chiefly along the western and southern boundaries of the district. They

are divided into two circles, northern and southern, each circle being under charge of a superior grade forest guard, who has a staff of forest guards under his control. The forests contain a little inferior teak, a good many bamboos, and a fair stock of mahúa, tendu, khair, keonja, babúl, dhau and kardahi (two kinds of anogeissus) and various other trees.

Fire-conservancy is confined to the two forests of Deogarh and Garowli, the area of which is nearly 3 square miles. The timber and bamboos are cut and carted to depôt by departmental agency. Bamboos are the main item of revenue, and, as the demand for them is increasing, it will probably be found necessary to preserve some of the best bamboo forests from fire, so as to encourage their growth, and also to increase their area by planting.

11. **Bánda division.**—The Bánda forests have not yet been brought under the operation of the Forest Act. The area of them is 118 square miles, of which 85 square miles have been acquired, and 33 are under Government control and will be acquired as soon as possible. The owners of the forests under Government control receive profits at 45 per cent. of the net income.

The forests are situated on hills of the ordinary Bundelkhand type, *viz.*, flat tops, steep scarp, and then easy slopes to the valley. In the valleys and on the slopes up to the base of the scarp the best forest is generally found, but in some cases there is also good forest on the plateaus It cannot be said, however, that these forests contain many valuable timber trees of a large size, but they produce fine poles which are suitable for local wants, a few bamboos and some firewood. But the principal revenue is from minor produce, grass and grazing fees.

CHAPTER I.

AREA AND BOUNDARIES.

1 —Area.

12. The following abstracts show the area of the "reserved," "protected," and other Government forests, and the changes during the year. Full details are given in Form No. 49 :—

Reserved Forests.

Divisions	Area on 1st April, 1882	Added during the year.	Excluded during the year	Area on 31st March, 1883.
	Square miles.	Square miles	Square miles	Square miles.
Rámkhet	7	...	...	7
Kumaun	636	...	...	636
Garhwál	473	...	* 29	444
Ganges	‡174	† 30	...	‡204
Jhánsi	38	...	...	38
Lalitpur	144	...	...	144
Total ...	1,472	30	29	1,473

* The portion of the Chandi forest transferred by Notification No. 400, dated 10th June, 1882.

† Twenty-nine square miles transferred from the Garhwál division as above, and one square mile (mauza Anjani, Bijnor district) declared a reserved forest by Notification No. 195, dated 21st February, 1883

‡ The portion of the forests leased from the Raja of Native Garhwál lying to the east of the watershed between the rivers Bhagirathi and Jumna also belongs to the Ganges division. The area is not known.

Protected forests.

Divisions	Area on 1st April, 1882	Added during the year.	Excluded during the year.	Area on 31st March, 1883.
	Square miles			Square miles.
Naini Tal	36	...	...	36
Rámkhet	59	...	...	59
Lalitpur	4	...	...	4
Total ...	99	...	...	99

With the exception of the Naini Tal division, all the areas of both "reserved" and "protected" forests are subject to correction.

Bánda forests—not yet brought under the operation of the Forest Act :—

How held.	Area on 1st April, 1882.	Added during the year.	Excluded during the year.	Area on 31st March, 1883.
	Square miles.			Square miles.
Acquired—inside forest line ...	84	...	...	84
Acquired—outside forest line ...	1	...	...	1
Under Government control, 45 per cent. of profits to owners.	33	...	...	33
Total ...	118	...	...	118

2.—BOUNDARIES.

13. **Naini Tal division.**—The boundary of Block I. of the Naini Tal division measures 38 miles and 6 chains, and of Block II., 3 miles and 25 chains. These boundaries are demarcated as follows :—

Forty Forest Department pillars, 16 Municipal Committee pillars, 13 Cantonment pillars. The boundaries of village lands within the forests measure 99½ miles, 96 of which are demarcated by 1,632 Forest Department pillars, and 3½ by 96 pillars on the estates of Colonel Wheeler and Mr. Newton and on the Naini Tal Brewery estate.

The boundaries, both of the forests and the village lands within the forests, are completely demarcated, but the pillars have not yet been numbered; this must be done at once.

14. **Ranikhet division.**—All the boundaries of the reserved and protected forests, and also of the village lands within the protected forests, are demarcated by pillars. The 17 principal pillars of the reserved forest and the 622 principal ones of the protected forests are numbered, and the intermediate ones will be numbered as soon as possible. The pillars round village lands within the forests, 1,327 in all, have not yet been numbered.

15. **Kumaun division.**—During the year the Deputy Superintendent of Forest Surveys satisfied himself that all pillars and boundaries were correctly shown in his field sheets, and the correctness of these pillars and boundaries as shown on the field sheets has been attested by the signature of the Senior Assistant Commissioner of Kumaun.

The forest boundaries are marked by the 330 pillars, the village lands within the forests by 695 pillars, and the boundaries of the portions of forests open to the exercise of recorded rights by 135 pillars. The Deputy Conservator reports that all boundaries are completely demarcated and all pillars numbered and in good repair. The cost of demarcation work during the year was Rs. 354.

16. **Garhwal division.**—As there was some doubt about the boundaries of this division, the Assistant Conservator in charge was requested to visit them. He reports that he visited every pillar during April, 1883, with the exception of a few on the line of the forest open to rights above Dharon and Jhirna.

The following is the result of his inspection :—

Outer boundary pillars.—During 1882-83, 52 intermediate pillars were erected on 20 miles of boundary, 49 of which were numbered. Pillars Nos. 54 and 179 were knocked down, and their position altered in consultation with the Deputy Superintendent of Forest Surveys; 23 pillars (numbers recorded) required repairs. The portion of the boundary from Silwar to Garab Sein has been demarcated, but has not yet been passed by the civil authorities.

Village land pillars.—Nos. 1, 3, 4, 5, 6 were not built. Arrangements made to have them built; 18 pillars (numbers recorded) required repairs; 24 pillars, demarcating three plots, were erected during the year; two small plots, cultivated by the villagers of Jhawanu, remained undemarcated pending the decision of the civil authorities as to whether the villagers have a right to the land or not.

Forests open to rights pillars.—Fourteen pillars (numbers recorded) which were wrongly placed were knocked down and their proper positions fixed; six pillars required repairs.

On the 31st May, 1883, the Foresters reported that almost all the pillars had been erected and repaired.

The numbering of all these descriptions of pillars must be carefully gone into next cold season, for it is not yet complete.

To more clearly demarcate the boundaries of the portions of forest open to the exercise of rights it will probably be necessary to cut a 4-feet bridle path from pillar to pillar. This, however, is a work which need not be hurried: it can be done gradually. The path will also be very useful for inspection.

Demarcation work cost Rs. 1,330 during the year.

17. **Ganges division.**—*Bhabar Forests.*—The outer boundary is completely demarcated by pillars, which have all been numbered. But the Assistant Conservator reports that a mistake in the numbering has occurred in the Udeypur range. This will be rectified.

The erection of 114 pakka pillars during the year in place of that number of kucha ones completed the demarcation of village lands within the forests, except in the portion of the Chandi forest which was transferred to the division in June, 1882, nor have the outer boundary pillars of this portion been erected.

The Assistant Conservator does not mention the boundaries of the portions of forests open to the exercise of recorded rights.

Leased forests.—The boundaries of the "reserved" forest have been demarcated during the year by 218 dry stone pillars, and the kucha pillars erected to demarcate the village lands within the reserve have been replaced by 99 pucka pillars. Rs. 1,427 were spent on demarcation work during the year.

18. **Jhánsi division.**—These forests are demarcated by 2,587 pillars, most of which are in good order.

The 102 acres of zamíndári land in the Sukwan Dukwan forest, which was acquired (see Government Notification No. 515, dated 26th July, 1882), by exchange for an equal area of land on the outskirts of that forest, will be demarcated during 1883-84.

19. **Lalitpur division.**—The Deputy Commissioner reports that all the forest boundaries are demarcated by stone pillars which, he believes, are in good order.

20. **Bánda division.**—The Collector shows the state of his boundaries in the following table:—

	Total number of miles.	*Miles on 31st April, 1882.*		*Miles on 31st March, 1883.*	
		Demarcated.	Pillared.	Demarcated.	Pillared.
Karwi	157½	157½	157½	157½	157½
Badausa	18	18	*Nil.*	18	*Nil.*
	175½	175½	157½	175½	157½

The forest in Badausa consists of one village surrounded by Native States. The settlement demarcation is the only boundary between the two, but that is considered sufficient.

21. The note on "the number of miles in the boundary in which the demarcation is certified to be correct," as required by the last sentence of para. 3 of Government Resolution No. 109, dated 2nd February, 1883, will be given in future reports as soon as a complete series of the new maps is received. At present it can only be given for the Naini Tal and Bánda divisions

The following is a summary of the amounts spent on demarcation work during 1881-82 and 1882-83 :—

Divisions.	1881-82.	1882-83.
	Rs.	Rs.
Naini Tal	...	...
Ramikhet	47	11
Kumaun	997	354
Garhwál	900	1,330
Ganges	894	1,427
Jhánsi	5	...
Lalitpur	60	...
Bánda	74	...
Total ...	2,979	3,122

CHAPTER II.

SURVEYS, WORKING-PLANS, AND ANNUAL PLANS OF OPERATIONS.

22. **Naini Tal division.**—The forests have been surveyed by the Forest Survey Department, and all the maps, scale 4 inches=1 mile, have been received.

23. All the forests have been valued, by enumeration of the trees, by the Working-plan Branch, and we expect to receive the working-plan soon.

24. The following is the annual plan of operations for 1882-83, with notes showing how far the programme was carried out :—

Sanctioned plan	*How far carried out*
(a) Pillars to be repaired and new ones put up in the place of those washed away, where possible	This has been done The cost will come into next year's accounts.
(b) 18,000 cubic feet of timber to be sawn.	297 trees were felled and logged.
18,000 ditto ditto carried.	15,074 cubic feet of timber were sawn.
	16,063 ditto ditto carried.
(c) 26,000 maunds of fuel for the Commissariat Department.	27,260 maunds delivered · 396 mature trees and 875 third class trees and poles were felled.
(d) 5,000 maunds charcoal from the Bhábar.	5,000 maunds brought to Naini Tal, of which 866 maunds were made in the Naini Tal forests.
(e) 500 maunds lime to be burnt.	713 maunds were burnt.
(f) Existing roads to be repaired.	Those requiring it were repaired.
(g) Kilberry house to be finished.	This was done
(h) Two Forest guards' chaukis to be built.	One was built. The other was not completed, owing to iron roofing sheets not being procurable.
(i) Plantations to be weeded and plants shaded, 1,000 deodars to be planted in Chorsa. Ash seedlings to be transplanted and as much planting to be done as possible.	The plantations were weeded and plants shaded where necessary. 3,103 ash transplanted on Cheena. 1,000 deodar planted in Chorsa. 1,000 walnuts ditto.

25. **Ramikhet division.**—All the forests of this division have been surveyed by the Forest Survey Department on the 4-inch scale, but we have not yet received the maps.

26. An enumeration valuation of the reserved forest, and of a large portion of the Seori protected forest, was made by the divisional officer three years ago. Since then the Working-plan Branch has been examining the forests and collecting information for a working-plan, which is in course of preparation.

27. The following is an abstract of the annual plan of operations for 1882-83, with notes showing how far the programme was carried out:—

Sanctioned plan.	*How far carried out.*
(a) All fences will be kept in repair. Boundary pillars will all be repaired as far as possible. Compartment pillars will be put up in the reserve forest. Boundary lines will be cleared where necessary.	All fences kept in repair. No repairs necessary. Will be done during rains. This has been done.
(b) Roads will all be kept in repair. The new road for carts to the fuel depôt at Rárikhet will be completed.	All necessary repairs made. New cart road completed.
(c) The outhouses and forest hut will be kept in repairs. A new chauki for the Forest Guard of Airadeo will be constructed.	Done. Done. Cost Rs. 73.
(d) Dalmoti filling all vacancies with acacias from pots.	Partially done.
(e) Malla Dalmoti. If chir seed is procurable, sowing all bare stony patches and planting up openings in ravines with ash. Ghingaru khal. filling up all vacancies with sowings of *chir*.	Partially done. Chir seed has been collected.
(f) Koirali. Planting acacias from pots; planting walnuts, chir and ash, and sowing bare hill-sides with chir if procurable.	Walnuts and ash planted.
(g) Fuel will be supplied as indented for by the Commissariat. Experiments will be made to determine the number of cubic feet of stacked wood equal to 100 maunds, with the view of making over fuel by measurement instead of by weight as at present.	Done. Experiments have been made.
(h) The Military Works, Public Works Department, and the District Public Works Department, the residents, and the villagers will be supplied with timber as usual.	Is being done. Two contractors have been allowed to get timber for the bazar supply and are allowed to sell at rates fixed by Cantonment Magistrate.
(i) Charcoal will be supplied as indented for.	Calls for no remark.
(j) Passes for grass are now issued at 8 annas per week in the reserve forest. The contract will be given as usual.	Contract for the year was Rs. 450, owing to fewer troops being in the station.

28. **Kumaun division.**—The survey of the forests of this division by the Forest Survey Department on the 4-inch scale was completed during the year, but we have not yet received all the maps.

29. An enumeration valuation of the sál forests in the Nindhore valley (Eastern Kumaun) was made by the Working-plan Branch in 1880-81, and from it a working-plan was prepared by the Inspector-General of Forests, on which we are now working in Western Kumaun; we are also working on a plan which was framed in 1881 by the Inspector-General.

30. The following is an abstract of the annual plan of operations for 1882-83, with notes showing how far the programme was carried out:—

Sanctioned plan.	*How far carried out.*
(a) *Boundaries.*—1. Keep existing pillars, ditches, and banks in repair.	All necessary repairs were done.
(b) *Fire-protection.*—2. Protect the same areas as were attempted last year, and possibly some addition may be made to the area in the Nindhore valley.	Eleven thousand two hundred and ninety-three acres were added to the attempted area of the previous year, making a total area of 101,128 acres attempted during the year under review. The six blocks of Nindhore forest contributed 9,293 acres of the added area, and Lachman Mandi in Chorgalia block made up the other 2,000. But from these latter the Civil authorities object to have cattle excluded.
(c) *Sowings and plantings.*—3. These must be regulated by the decision of the Conservator on Mr. Blanchfield's letter, which was submitted in original on the 18th July, 1882.	There was a general failure throughout this division of sál seed this season, and as it has been found that the seed of prolific years is healthier and more fertile no outlay was incurred for new sowings.
(d) *Export roads.*—4. The road between the Tarái and Kumaun, having been opened from Chandani	Six bridges were erected on this road, rendering it passable throughout from Chandani to the

to Chorgalia, will, as far as funds permit, be permanently bridged and kept in repair.

Chorgalia-Sitarganj road, and the road itself was repaired.

It is also proposed to open the undermentioned lika in Eastern Kumaun for the export of timber and forest produce :—

Hatgar	Sot	241	chains.
Jaula Sál	"	220	"
West Jaula Sál	"	180	"
Birgot	"	220	"
Bhargot	"	220	"
Belpani	"	60	"
Liabar	"	380	"
Kumia	"	320	"

The following export lika were opened :—

		Ch.			Ch.
Hatgar Sot	...	227	Bhargot Sot	...	235
East Jaula Sál Sot	...	211	Belpani "	...	*nil*
West ditto "	...	164	Liabar "	...	362
Birgot "	...	213	Kumia "	...	245

Besides which, all existing export roads were repaired. Two roads were also opened this season, payments for which will fall in 1883 84.

		Miles	ch.
1st, from Rampur to Kota Bagh	...	3	5
2nd, from Mohan to Kumeria...	...	4	27

and existing roads will be repaired as usual.

(e) *Buildings.*—5. A tool-shed will be erected at Chorgalia

And a second-class rest-house in the West Kotah range, and existing buildings will be kept in repair.

This tool-house has been erected, but payments for it will fall in 1883-84.

A second-class forest-house was commenced and completed at Bhalon, and all existing buildings were kept in repair.

(f) *Creeper cuttings.*—6. Will be undertaken at Horal.

Eight thousand nine-hundred and six creepers were exterminated during the year throughout the division.

(g) *Sample plots.*—7. Sanmion Thapla and Lachman Mandi in Eastern Kumaun and Amtonola near Mohan will be protected as usual, and the half-yearly measurements of the trees within them will be taken and recorded.

The plots were protected and the measurements were carefully taken and recorded.

(h) *Other works.*—8. The cattle bath in course of erection at Chorgalia timber depôt will be completed, and at Jaula Sál a tent plat to be added to the plot on which the bungalow stands.

The work on this cattle bath has been suspended until it is known whether a stock depôt will be kept up at Chorgalia. The top of the spur on which the Jaula Sál Forest bungalow stands has been flattened off, so that tents can be pitched there ; but no further expense was incurred as the site appears rather insecure.

(i) *Yield and working.*—9. In West Kumaun, defective and old trees have been marked to be felled for the Government timber operations in Kotah forests and for merchants in Chilkia.

After 4,989 sál karis had been sawn in west Kotah, this work was stopped, as it was not desirable to add to the heavy stock in the Ramnagar depôt while demand was so slack ; but exporters were allowed to continue operations in Chilkia, from whence they removed 27,087 cubic feet in the shape of round timbers, karis, pattis, &c.

Yield and working.—10. In East Kumaun 500 sál trees have been marked for felling for Government operations in Chaubhainsi forest, and 200 are to be supplied to the Nawáb of Rampúr from Chaubhainsi, but further west.

In East Kumaun 464 of the 500 marked sál trees were felled and converted into scantlings, (containing 25,510 cubic feet) and the 200 sál trees (containing 13,480 cubic feet) were as usual supplied to the Náwab of Rámpur free.

(j) *Amendments.*—The foregoing programme was sanctioned by Conservator's No. 30, dated 26th July, 1882, " provided the timber operations are in accordance with paras. 143 and 158 of Dr. Brandis' Suggestions."

None of the foregoing operations infringed any of Dr. Brandis' suggestions.

31. **Garhwál division.**—The survey of the forests of this division by the Forest Survey Department on the 4-inch scale was almost, if not quite, completed during the year, but all the maps have not yet been received.

32. A working-plan, based on an enumeration valuation, has been prepared for the North Patli Dún range (area 79 square miles), and all fellings of sál are conducted in accordance with that plan.

33. The following is an abstract of the annual plan of operations for 1882-83, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(a) Demarcation work to be pushed on.	Done.
(b) New roads to be made up the Mudalti and Kakrawala Sots.	Done.
(c) Existing roads to be repaired.	Done.
(d) Mandhal valley bridle road to be made, if possible.	Lined out; will be made in 1883-84.
(e) Dhikala rest-house to be completed and a small office to be built at Kalaghar, if possible.	House completed. Office not built for want of funds.
(f) *Fire-protection.*—The same area to be protected as last year.	Done.
(g) *Creeper-cutting.* To be continued according to working-plan.	Done.
(h) *Timber operations.*—50,000 cubic feet of sál timber may be exported from Gonjera Sot according to working-plan, and as much sein as can be disposed of.	Done. See yield and working.
(i) Timber export roads to be made as required.	Done.

34. **Ganges division.**—The Forest Survey Department was engaged during the year in surveying the Bhábar forests of this division, and also the reserved portion of the leased forest, on a 4-inch scale. The work was not finished.

35. The Working-plan Branch was asked to make a detailed examination of the Bhábar forests and prepare a working-plan. This will be commenced next winter.

36. The following is an abstract of the annual plan of operations for 1882-83, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(a) Push on the demarcation of the Bhábar forests.	Almost completed, except in the portion of the Chandi forest transferred to the division during the year.
(b) Erect permanent pillars on the outer boundaries of the portion of the leased forests which has been declared "reserved," and also on the boundaries of village lands within that portion.	Done.
(c) New roads to be made if necessary. Existing roads to be repaired.	Eight miles of new cart roads made. Done.
(d) *Fire-conservancy.*—The same areas to be protected as last year.	Done.
(e) Prepare up to 20,000 cubic feet of scantlings of sein and kokat on indent, and supply poles to the Irrigation Department as usual.	Done. Done.
(f) Ordinary export of minor produce through the khám tahsil as usual.	Done.

37. **Jhánsi division.**—There was no survey work in this division and there is no working-plan.

38. The following is an abstract of the annual plan of operations, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(a) Demarcate the portion of forest obtained in exchange for an equal portion on the outskirts of the Sukwan Dukwan forest, and keep all existing boundary marks in repair.	This will be done during 1883-84. Done.
(b) Keep existing roads in repair.	Done.
(c) The Sukwan Dukwan forest hut to be completed and the depôt huts to be kept in repair.	Done. Done.
(d) *Fire-conservancy.*—The same areas to be protected as last year.	Done.
(e) Sukwan Dukwan and Ganupura plantations to be extended.	Nine acres of Sukwan Dukwan planted with teak and shisham; 5 acres in Ganupura, &c., sown with babul, teak and mahúa.
(f) A well to be constructed near the Sukwan Dukwan plantation.	In course of construction.
(g) A bund to be made across the Koelar nadi for the improvement of the Ganupura plantation.	Done.
(h) Depôts to be supplied with poles and minor produce as usual.	Done.

39. **Lalitpur division.**—There were no survey works in this division, nor is there any working-plan.

40. The following is an abstract of the annual plan of operations for 1882-83, with notes showing how far the programme was carried out:—

Sanctioned plan.	*How far carried out.*
(a) Keep boundary marks and existing roads in repair.	Done.
(b) Build an inspection hut at Deogarh and keep all buildings in repair.	Done.
(c) The Deogarh and Garowli forests to be protected from fire as usual.	Done.
(d) Teak to be sown and bamboos planted in Kachnoda forest.	Done, but unsuccessful. Rs. 50 spent on the work.
(e) Depôts to be supplied with poles, bamboos and minor produce as usual.	Done. Sales increased by nearly Rs. 800.

41. **Bánda division.**—It is believed that the forests have been surveyed by the Revenue Survey Department, but no maps have yet been received.

42. There is no working-plan, and the Collector did not submit an annual plan of operations for 1882-83.

CHAPTER III.

PROTECTION AND IMPROVEMENTS.

(1)—Establishments.

43. The superior establishment has been given in full in para. 1, so there is no need to repeat it here. There was no change in the subordinate establishment, except a trifling addition in the Ganges division to look after the portion of the Chandi forest which was transferred to that division during the year.

(2)—General Protection and Breaches of the Forest Law.

44. Form No. 52, which gives full details of all prosecutions, is summarized in the following table:—

Divisions.	*Prosecutions.*				Convictions.	Acquittals	Cases pending at close of 1882-83.	How tried.
	Pending from 1881-82.	New of 1882-83.	Total for trial.	Concluded in 1882-83.				
Naini Tal ...	...	9	9	9	6	3	...	By Divisional Officer in his Magisterial capacity.
Ránikhet ...	...	16	16	16	15	1	...	By Cantonment Magistrate.
Kumaun ...	...	...	...	...	...	...	...	...
Garhwál ...	...	2	2	1	1	...	1	By the Garhwál District Magistrate
Ganges ...	...	5	5	4	2	2	1	Ditto ditto.
Ditto ...	...	1	1	1	...	1	...	By the Sahéranpur District Magistrate.
Ditto ...	2	6	8	6	6	...	2	By His Highness the Rája of Tehri.
Jhánsi ...	...	5	5	5	5	...	...	By the Jhánsi District Magistrate.
Lalitpur ...	...	16	16	16	15	1	...	By the Lalitpur District Magistrate.
Totals ...	2	60	62	58	50	8	4	

*Including the prosecutions pending from 1881-82, but excluding those pending at close of 1882-83, the percentage of convictions (50) to prosecutions concluded (58) is 86·20.

45. The above cases were tried by Magistrates, and the following table shows the number of cases compounded under section 67 of the Forest Act:—

Divisions.	Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total cases.	Amount received in compensation.	Remarks.
Naini Tal	3	142	...	25	170	316 6 0	
Ránikhet	...	...	...	...	29	35 10 0	
Kumaun	...	...	...	..	126	599 0 0	
Garhwál	...	15	...	33	48	87 14 0	
Gangos	...	...	...	...	13	117 0 4	
Totals ...	3	157	...	58	386	1,185 14 4	

46. With reference to para. 9 of last year's annual report for this Circle and to para. 4 of the Local Government Resolution No. 109, dated 2nd February, 1883, the cases tried by Magistrates have been shown separately from the petty cases compounded under section 67 of the Forest Act. Hitherto they have been mixed up together in Form No. 52, and therefore no comparison with former years can be made. If the form now adopted is approved of comparisons will be feasible in future.

(3)—Forest Fires.

47. **Naini Tal division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres	Acres.	Rs.
1882	19,380	952	18,428	541
1883	19,380	387	18,993	617

In 1882 it cost 5·35 pie per acre.

In 1883 „ 6·11 „

The area is the same as was attempted in 1882.

Eleven fires occurred during the year, by which 387 acres were burnt.

(*a*) Two fires (on the 26th November, 1882 and 22nd January, 1883) were lighted by people going along the Almora road, but the culprits were not caught. One of these fires was lighted in three places.

(*b*) One fire (on the 29th December, 1882) originated at a charcoal kiln, and the contractor was fined.

(*c*) One fire (on the 3rd May, 1883) was caused by sawyers' coolies making a small fire to light their pipes and not putting it out when they went away. Three men were fined for this.

(*d*) Three fires (on the 4th, 12th and 21st May, 1883) came from outside forests and got across the line.

(*e*) Three fires (on the 11th, 12th, and 20th May, 1883) spread into the forest when the traces were being burnt. One was caused by a high wind suddenly arising, and the other two broke out during the night from some rotten wood which had not been extinguished.

(*f*) One fire (on the 22nd May, 1883) was caused by a villager burning rubbish in his fields, but as he put it out before it had done any damage he was not punished.

48. **Ránikhet division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1882	12,260	257	12,003	470
1883	12,260	68	12,192	491

In 1882 it cost 7·36 pie per acre.

In 1883 „ 7·68 „

The areas are the same as those attempted in 1882.

(*a*) There were three small fires in the "reserved" forest, which burnt 10 acres.

They occurred on the 4th and 5th November, 1882, and on the 27th March, 1883.

The first two broke out inside the forest and almost at the same spot; but although the Cantonment Magistrate sent a sharp policeman to make enquiries, the culprit was not caught. The third fire got into the forest when the traces were being burnt, but it was very soon put out.

(*b*) In the Seoni "protected" forest there were four small fires (9th and 11th December, 1882, 15th February, 1883, and 7th May, 1883), by which 51 acres were burnt.

The first originated on the cart road. A cartman lit a fire in the drain; his bullocks kicked some bhúsa into it, and the flames caught the grass on the cutting and spread into the forest.

The second was lit by some sawyers when smoking. Two of them were sent to the Magistrate and were fined.

The third spread from a fire lit by a lad and two children who were herding cattle. The case was sent to the Magistrate and the lad was fined.

The fourth occurred in the "closed" portion, and was lit by some one going along a closed path where he had no right to go. Apparently he made a little fire to light his pipe and did not put it out when he went on.

(*c*) The eighth fire was in the "closed" portion of the Ganiadeoli "protected" forest on the 28th March, 1883, by which seven acres were burnt. This fire was, no doubt, lighted by villagers, and it is not the first time they have done it in this forest. The forest establishment had been burning the trace between the forest and the cart road during the day, and fearing the villagers, they kept watch up to 11 P. M. The forest guard and fire-watcher then went away to get their food, leaving five coolies on guard. About 2 A. M. the guard and watcher returned and found the five coolies asleep and the forest on fire. The fire was lighted inside the forest near a ravine, and it ran up the hill in a narrow strip to the fire-line which had been burnt during the day:—

49. **Kumaun division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1882	89,835	10,261	79,574	7,350
1883	98,828	3,284	95,544	7,928

In 1882 it cost 15·70 pie per acre.

In 1883 „ 15·40 „

Name of forest.	Area attempted in 1882.	Area attempted in 1883.	More.	Less.	Remarks.
	Acres.	Acres.	Acres.	Acres.	
Chilkia Mohan ...	46,240	46,240	...	...	
Kotah	23,298	23,298	...	...	
Garibulchand ...	7,112	7,112	...	...	
Hurai	2,565	2,565	...	...	
Sudhhat-Jounia Sál ...	8,320	8,320	...	...	The additional area is the compartments in which there were fellings during the year.
Nindhore	2,300	9,293	6,993	...	
Lakman Mandi ...	...	2,000	2,000	...	Added in accordance with Inspector-General's suggestions

Four fires occurred, by which 3,043 acres were burnt.

(*a*) The first occurred in Kotah on the 10th December, 1882; 54 acres were burnt. It got into the forest when the fire-lines were being burnt. The contractor was punished.

(*b*) The second occurred in Hurai on the 12th April, 1883. The whole forest, 2,565 acres, was burnt. Owing to its being surrounded by district forests, and to the pertinacity with which the villagers resisted our attempts to protect it, the Commissioner kindly undertook the protection of this forest several years ago, and until this year his attempts have been fairly successful. The Forest Department clears the fire-lines and hands it over to the Commissioner in February. The fire is said to have originated in the outside jungle at the north corner, and to have been carried across the fence by a strong wind.

(*c*) The third fire occurred in Nindhore on the 9th May, 1883; 640 acres were burnt. This fire got in from the outside on a very windy day.

(*d*) The fourth fire occurred in Kotah on the 10th May, 1883; 25 acres were burnt.

The origin of this is not known.

50. **Garhwal division** –

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1882	113,252	4,036	109,216	7,010
1883	118,252	2,113	111,139	7,952

In 1882 it cost 11·89 pie per acre.
„ 1883 „ 13·48 „

The areas are exactly the same as those attempted in 1882. This year they are shown in form No. 51 by *ranges*, which is more concise and systematic than the method previously adopted.

(*a*) There were two small fires in the Mandhal working circle (North Patli Dún range) on the 23rd February and 13th May, 1883, by which 40 acres were burnt. One got in when the outer fire-line was being burnt, and the other got across the line when the outside grass was being fired.

(*b*) In the South Patli Dún range there were three small fires, on the 24th and 26th November, 1882, and 18th February, 1883, by which 73 acres were burnt. All three occurred when the fire-lines were being burnt.

(*c*) In this range there was also a large fire on the 25th March, 1883, which burnt 2,000 acres before it was put out.

It originated *inside* the forest, and is supposed to have been lighted by the wadding from a gun fired, contrary to orders, by a Forest guard. It was proved that this man was shooting at the place where the fire originated on the date of its occurrence, and consequently he was dismissed.

51. Ganges division—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres	Acres.	Rs.
1882	18,893	1,715	17,178	743
1883	18,893	170	18,723	878

In 1882, the protection of the 8,872 acres of *hill* forest cost Rs. 7, or ·15 pie per acre.

In 1883 this area cost Rs. 51, or 1·10 pie per acre.

In 1882 the 10,021 acres of *Khábar* forest cost Rs. 736, or 14·10 pie per acre.

In 1883 this area cost Rs. 827, or 15·84 pie per acre.

The areas are exactly the same as those attempted in 1882.

(*a*) Two small fires occurred. One in the Andher Majhera on the 16th January, 1883, which burnt 44 acres; the other in Sukrao on the 25th April, which burnt 126 acres.

The former got in from the outside, and the latter was lighted in the interior of the forest, probably by a shikári.

52. Jhánsi division—

Year.	Area attempted to be protected.	Failures.	Actually protected	Cost.
	Acres.	Acres.	Acres.	Rs.
1882	1,440	...	1,440	150
1883	864	...	864	90

The rate was the same for both years, *viz.*, 20 pie per acre. It has not been explained why a less area was attempted this year than last.

53. Lalitpur division—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1882	1,749	...	1,749	100
1883	1,749	...	1,749	100

It cost the same in both years, *viz.*, 10·97 pie per acre.

54. There are no regular fire-conservancy operations in the Bánda division, but Rs. 50 was spent during the year on clearing the lines, with a view to prevent fires getting into the forest.

55. The following is a summary of the fire-conservancy operations of the year, compared with the previous year, Bánda being omitted:—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost during the year.	Total cost to 30th June of the year.
	Acres.	Acres.	Acres.	Rs.	Rs.
1881-82 ...	256,809	17,221	239,588	16,364	77,300
1882-83 ...	265,226	6,022	259,204	18,056	95,356

56. The protection of 40,512 acres of hill forests (including the Naini Tal and Ránikhet divisions and 8,872 acres of leased forest in the Ganges division cost—during 1881-82, Rs. 1,018, or 4·82 pie per acre; during 1882-83, Rs. 1,159, or 5·49 pie per acre.

The protection of 216,297 acres of *Bhábar* and plains forests cost—during 1881-82, Rs. 15,346, or 13·62 pie per acre; and of 221,714 acres during 1882-83, Rs. 16,897 or 14·43, pie per acre.

The proportion of "failures" to "area attempted" was for the whole Circle, in 1881-82, 6·70 per cent.; in 1882-83, 2·27 per cent.

57. The following is a summary of the 31 fires which occurred :—

Cause of fires.	Number of fires.	Area burnt.
		Acres.
Lighted by unknown hand inside the forests, either intentionally or by accident	8	2,183
By workmen by accident	3	22
By villagers or travellers by accident	4	48
By workmen when burning fire traces	10	203
Fires which crossed the outer fire traces from outside jungles ...	6	3,566
Total	31	6,022

Para. 155 of my report for last year is applicable here, and therefore it is quoted at length :—

"I have reported very fully on fire-conservancy operations, because it is the most difficult and the most important of all our work, and because I consider it highly advisable to record the origin of every fire which occurred, in order that Government may clearly understand the causes of all the failures and the difficulties which we have to contend with, and also that every Divisional Officer may be made acquainted with what happened in the other divisions of the Circle to which he belongs."

(4)—Grazing and Fencing.

58. **Naini Tal division.**—With the exception of one small plot (Jábar), where deodar has been planted, the whole area is open to free grazing by right-holders, but they have not the right to locate their cattle on land under the control of the Forest Department.

Squatters, who come for the purpose of supplying milk to Naini Tal, are allowed to settle and graze in the forests on payment of a small fee. There are no fences.

59. **Ránikhet division.**—There are no grazing dues in this division. Grazing is prohibited in the "reserved" forest and in the 3 "closed" blocks of protected forests. The remainder of the area is open to free grazing by right-holders.

The "reserved" forests and the 3 "closed" blocks are fenced, and the fences were kept in repair at a cost of Rs. 93.

Five miles and 47 chains of wire-fencing was put up round the "reserved" forest, and 1 mile and 43 chains round the Seoni "closed" block at a cost of Rs. 223, 3 miles and 9 chains of post and rail fencing was also erected round the Seoni "closed" block at a cost of Rs. 155. The total expenditure on fencing during the year was Rs. 471.

60. **Kumaun, Garhwál, and Ganges divisions.**—The conditions in these three divisions are similar. Portions of the forests are open to the exercise of recorded rights, and in these portions free grazing by right-holders is allowed. Grazing is prohibited

in the portions closed for fire conservancy. In the remainder of the forests grazing is permitted on payment of the authorized dues. The revenue in these three divisions from grazing and fodder grass generally amounts to about Rs 12,000 to Rs. 13,000 per annum.

61. In the Kumaun division two of the fire-protected forests (Garibalchand and Jounla Sál are fenced, and in the Ganges division there is one fenced forest (Papidanda). The fences are kept in repair. In the Kumaun division Rs. 155 was spent on fencing, and in the Ganges division Rs. 35.

62. **Jhánsi and Lalitpur divisions**—The revenue under the sub-head grazing and fodder grass is about Rs. 5,000 in these two divisions, the principal portion being due to sales of grass in the grass preserves.

63. In the Bánda division the revenue from grazing was Rs. 1,228 in 1881-82 and Rs. 775 in 1882-83. The grazing due is one anna per head In seasons of drought large numbers of cattle are brought to these forests to graze and the revenue from this source varies accordingly.

64 The following is a summary of the money spent on fencing during 1881-82 and 1882-83 :—

	1881 82.	1882-83.
	Rs.	Rs.
Ránikhet division	8[illegible]9	471
Kumaun "	628	155
Garhwál "	*Nil.*	*Nil.*
Ganges "	25	35
Total ...	1,542	661

(5)—Natural Reproduction.

65, Natural reproduction depends entirely on protecting the forests from fire and excluding grazing. In the portions of our forests which have been protected against fires and grazing for a number of years the reproduction is, generally, as good as can be desired, whereas in those portions which are annually burnt and grazed it is as bad as might be expected. The Ránikhet "reserved" forest is a capital example of this Inside the fence the ground is covered with fine, straight, healthy seedlings, whereas, outside the fence, the few seedlings one sees are nasty, unhealthy objects, with crooked stems and double tops caused by the annual fires.

(6)—Artificial Reproduction.

66. **Naini Tal division.**—The following is a brief description of the old plantations :—

Ayarpátha.—Area 5 acres, sown with oak (quercus dilatata), during the rains of 1875, on the site of a clearing for potato cultivation. It is a success.

Jábar.—Area 147 acres. Commenced in 1876, completed in 1878. About 20,000 deodars planted during the rains on a slope facing the north, which had been cleared of forest quercus lanuginosa) many years previously. Some of the oaks had sent up coppice shoots, and these were taken advantage of as nurses for the young deodar. This plantation is a complete success.

Cheena.—Area 77 acres. In three plots, called Cheena, Nairwari, and Deopatha. Commenced in 1876, completed in 1880. Deodars planted in the rains, walnuts and horse-chestnuts planted in the winter. Oaks of three kinds (quercus incana, dilatata, and lanuginosa) sown when the acorns were ripe.

All the trees are doing well. These plantations are on the sites of old clearings for potato cultivation.

Kahla.—Area 35 acres. The sites of old clearings for potato cultivation. In 1877 2,500 deodars were planted; all died except 500, and these are growing well. In 1879, 3,500 walnut seedlings were planted and some 500 walnuts sown. These are getting on very well indeed.

67. The following is a list of the plantations in progress, in which success is, as yet, uncertain, or which are not completely stocked :—

	Acres.
West face of Cheena about ...	25
Bádli ...	25
Manlání ...	25
Chatrání ...	10
Choras ...	15
Kiládhúnga ...	24

The work of the year is described below ; it cost Rs. 525:—

Planting 3,100 ash, 1,000 deodar, and 1,000 walnuts.

Sowing ash in 3,560 seed patches.

Weeding all the plantations and shading the young trees where necessary.

The ash plants were obtained from the Bádli plantation, the deodars and walnuts were brought from the Ránikhet nursery.

68. **Ránikhet division.**—Mr. Craw's report, which here follows, gives full information of all the plantations, both old and new, in the "reserved" forest:—

"2. The following is a list of the kinds and quantities of seeds sown during the year, *viz.* :—

		lb.
1st.	*Fruit trees.*—Apricot ...	253
	Apple ...	3½
	Plum ...	8
	Peach ...	15
	Sweet chestnut ...	14
2nd.	*Forest trees.*—Horse chestnut ...	268
	Ash ...	18
	Acaica ...	49
	Chír ...	7
	Pinus australis ...	2

"3. The pinus australis, which is referred to in your No. 43, dated the 11th August, 1882, was sown on the 18th August, and, I regret to say, not a single seed has vegetated. It is very unfortunate the parcel was so late in reaching us. Pine seeds quickly lose their vitality on exposure, and should therefore be sown as soon as possible ; a few months would have been saved if the parcel had been sent direct here from London instead of to the Government of India, and it might be advisable to make some representation in the matter with a view to all seeds suitable for trial in the North-Western Provinces being sent to you direct.

"4. With the exception of the sweet chestnut seed which was received from Mr. Wilson, Dehra Dún, and which, I am sorry to say, has rotted in the ground, the seeds of the several fruit trees were all grown in the nursery, and being fresh and in good condition are growing well. Of the other seeds a portion of the acacia was gathered from trees growing in the nursery and at Jakhdeo and the remainder from trees in the station and at Dúnagiri. The ash came from the Naini Tal division and the horse chestnuts from Dúnagiri.

"Those seeds also were good and are growing well.

"5. The acacia seed was sown in June and July at Dalmoti and Koiráli, some in patches in the fields and the remainder in seed beds, to transplant into pots, as was done the preceding year. With the exception of the chír seed, which was sown in an open patch in the jungle below Jakhdeo, the other seeds were sown in the nursery.

"6. The planting operations outside the nursery consisted of 6,350 pinus excelsa, 2,368 walnuts, 2,200 ash, and 180 oak being put down at Koiráli, and 1,200 acacias from pots at Dalmoti. With the exception of a few pinus excelsa all the plants at

Koirâli are apparently doing well, but I regret I cannot report favourably of the acacias planted at Dalmoti. These were planted early in the rains when about 1½ feet high, and by the end of the season most of the plants had attained a height of 3 feet and over and strong in proportion. I was in hopes that this plan of preparing the plants nearly a year in pots previous to finally planting in the open ground would give them a good start and thoroughly establish them against drought and frost; but, I am sorry to say, it has not proved successful, as the severe winter has killed nearly all the plants to the ground. It is most difficult to establish the acacia at Dalmoti. Several plants have been carefully tried, but owing to the low situation which is subject to frost, and the light nature of the soil, it is hardly possible to carry the plants through the first year; and though the old plants which have escaped are upwards of 12 feet high, I would again respectfully suggest that all vacancies be filled up with some more hardy plant such as pinus excelsa and deodar.

"7. In the nursery 412 of the best kinds of apples have been added to the orchard.

"8. The following is a list of forest and fruit trees distributed during the year:—

Forest Trees.

To whom.	Gum.	Deodar	Walnut	Horse chestnut	Willow.	Miscellaneous.	Total.
Cantonment Magistrate, Ránikhet, to plant in station.	2,700	125	2,500	9,500	680	...	15,505
Forest Department, Naini Tal ...	...	1,300	1,000	...	...	...	2,300
Department Public Works, Military Works, Ránikhet.	...	...	...	...	120	...	120
House-holders and villagers ...	...	73	138	102	...	37	350
Total ...	2,700	1,523	3,638	9,602	800	37	18,275

Fruit Trees.

To whom.	Apple.	Pear.	Apricot.	Plum.	Peach.	Nectarine.	Cherry.	Quince.	Fig	Mulberry.	Loquat.	Currant.	Total.
Householders and villagers ...	1,445	2,968	948	560	713	32	764	130	133	16	12	6	7,727
Simla Municipality garden ...	150	200	150	...	250	100	...	...	...	...	...	...	850
Commissioner for Peura orchard.	149	1,002	...	...	...	...	...	...	...	...	...	...	1,151
	1,744	4,170	1,098	560	963	132	764	130	133	16	12	6	9 728
													18,275
Total trees distributed ...													28,003

"9. The revenue from the sale of fruit is as under:—

	Maunds.	Seers.	Rate. Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Apples	7	22	0 10 0	188 12 0		
	12	3	0 6 0	181 2 0		
	10	37	0 4 0	109 4 0		
	5	32	0 1 0	14 8 0	493 10 0	
Apricots	3	36	0 4 0	39 0 0		
	4	38½	0 1 0	12 6 6	51 6 6	
Cherries	...	8	0 4 0	2 0 0	2 0 0	
Peaches	1	18	0 4 0	14 8 0		
	3	7	0 1 0	7 15 0	22 7 0	
Plums	1	10½	0 4 0	12 10 0		
	5	39	0 1 0	14 15 0	27 9 0	
Pears	...	25	0 10 0	15 10 0	15 10 0	
	57	36				612 10

"10. This amount would have been very much larger but for the great quantity of fruit that went bad when the nursery and forest lodge were quarantined from the 8th June to the 1st July on account of a case of small-pox which occurred in the servants' quarters forest lodge.

"11. The following table shows the quantity of each kind of fruit that was spoiled, *viz.*:—

	Maunds.	Seers.
Apples	5	30
Apricots	42	39½
Peaches	3	18
Cherries	1	6
Pears	...	33
Plums	...	36½
Total ...	55	3

or 2 maunds and 33 seers only less than half the whole crop. A little fruit, principally apricot and peaches, was eaten by bears.

"12. There is promise of a good crop of apples and apricots this year; but the other fruits, with the exception of the Morello cherry, have not set well.

"13. The following is a list of forest and fruit trees in the nursery, *viz.*:—

Forest trees.—Walnut	5,400		
Deodar	56,500		
Horse chestnut	11,615		
Oak	1,400		
Pinus excelsa	13,330		
Ash	132,405		
Cypress	13,592		
Alder	1,533		
Willow	1,012		
Wild pear	140,500		
Ghingaru or thorn	23,000		
Miscellaneous	832	451,119	
Fruit trees.—Apple, grafted	4,049		
" stock	10,954		
Pear, grafted	5,771		
" stock	7,765		
Apricot, budded	838		
" stock	26,800		
Cherry, budded	433		
" stock	1,769		
Plum, budded	786		
" stock	1,897		
Peach, budded	9,355		
" stock	2,065		
Nectarine	255		
(Peach stock)	...		
Loquat, inarched	45		
" stock	73		
Quince	290		
Fig	1,023		
Currants	315		
Mulberry	300		
Sweet chestnut	1,220	76,000	
Total		527,119	

" 14. The wild pear and ghingaru plants are in preparation for a hedge round the closed reserve forests.

" 15. Three thousand apple stock and 10 grafted sweet chestnut plants have been received from the Commissioner from the Peura orchard, the former to graft for distribution and the latter to plant in the sweet chestnut quarter in the nursery for seed and grafts. These 10 sweet chestnuts originally came from Italy, and are no doubt from good fruitful varieties.

" 16. Whenever the mális in the nursery have not been engaged in transplanting, grafting, and the ordinary work of the garden, they have been employed in terracing the ground between the fruit trees, to prevent its being washed away by heavy rains. A good deal of this work has been done, but there is still a deal to do towards the bottom of the garden.

" 17. As desired, I will now remark on the condition of the older plantations in the closed Reserve Forests, taking them in their order of planting :—

" 18. *Jainoli.*—This plantation consists of a number of old grain and potato cultivation patches in oak and chír forests and was commenced in 1873-74, since which time the following trees have been planted :—

Deodar	56,454
Oak	25,611
Walnut	7,400
Horse chestnut	4,555
Acacia	870
	94,8 0

Of this number 10,391 deodar and 2,203 oaks were required to fill up vacancies at various times. The greatest number of plants was put out in the rains of 1877, which were light with frequent breaks, and though great care was taken to shade the plants, a good many died. The oaks sufferred most and were subsequently replaced with deodar. The horse chestnuts and walnuts, being deciduous and planted in the cold weather, did not suffer at all, and, with the exception of such walnut plants as were cut over by porcupines, are all alive and growing well. Where the soil is good and moist both walnuts and horse chestnuts are 10 and 12 feet high, some are 20 feet. The pinus excelsa and deodar also are growing extremely well with scarcely a vacancy among them, and run from 2 to 14 feet in height. The oaks were planted among the deodar and, as has been remarked, many died. The few acacias have nearly all died out, owing to the open friable nature of the soil of this plantation the plants have received little cultivation and notwithstanding they are growing extremely well.

" 19. *Ghingaru khal* —This small plantation, formerly grain cultivation, is entirely in chír forest, and, with the exception of a little at the bottom, the soil is light and poor. It was commenced in 1873-74 and has been planted with the following trees :—

Walnut	7,600
Horse chestnut	4,3[illegible]6
Deodar	4,520
	16,496

Porcupines and rats have been very troublesome, particularly among the walnut-plants, of which they destroyed a great number, and, until the ground got covered, with grass and scrub, the plants in the light soil made very little progress. Now they are doing a little better. Where the soil is deep and cool horse chestnuts and walnuts are upwards of 13 feet high and deodar 4 and 5 feet. But it is only at the bottom of the patch, where the soil is good, that the plants can be said to be growing satisfactorily.

"20. *Jakhdeo*—This plantation consists of old village cultivation with several occasionally cultivated patches in the adjoining chír forest, and was commenced in 1875-76, since which time the following trees have been planted :—

Gums	53,661
Acacias	13,142
Walnuts	28,550
Horse chestnuts	10,000
Sweet chestnuts	86
Deodar	20
	105,469

On the level fields, where the soil is deep and good, all kinds of plants have thriven and very few vacancies have had to be made good at any time. Gums upwards of 20 feet high, acacias 15 to 20 feet, and walnuts and horse chestnuts 8 and 10 feet. The few sweet chestnuts have also grown well ; a few produced fruit, but, owing to the absence of male flowers, it did not come to maturity. The outlying patches, where the soil is hard, dry, and poor, the acacias and gums have mostly died out or made little or no progress. Cultivation seemed to do them little or no good, at least no permanent good, for succeeding drought and frost undid all the good that resulted from rains cultivation. Porcupines were most troublesome among the walnut plants in the outlying patches, cutting them through a few inches below the surface of the ground, and it is only within the last three years that they have ceased to be troublesome, due, I think, to the plants having grown out of their thick soft collar.

"21. *Dalmoti*—This is old village cultivation in the chír forest. With the exception of a few marshy fields, the land is light and poor. Planting was commenced in 1877-78, since which time the following trees have been planted :—

Gums	4,786
Acacias	1,500
Alders	6,914
Ash	827
Deodar	125
	14,152

Nearly all the gums and a good many of the acacias have died out, killed by frost and drought. Their places have repeatedly been filled up with sowings of acacia in drills and patches, and although the seed germinated freely and the young plants were carefully cultivated, shaded from the sun and protected from frost, they have been most difficult to establish : even when established and 4 and 5 feet high, numbers die down to the ground every winter. On the upper fields, where the soil is a little better, the few acacias that have escaped are now 8 to 12 feet high. Neither the ash nor the alder have grown well. The alder was mostly brought from the jungle, and, not having good fibrous roots, did not bear transplanting well. The deodar and a few pinus excelsa and cypress planted round the bungalow are growing remarkably well, and the fact that they are doing so has led me to think it would be advisable to use them in filling up the vacancies among the acacias.

"22. *Koirdli*—This is old village cultivation in the chír forests and was commenced in 1879-80. The situation is higher, and the land better, than at Dálmoti. The following trees have been planted, *viz.* :—

Ash	3,507
Pinus excelsa	6,350
Walnut	2,368
Oak	158
	12,383

Of this number 1,307 ash were planted the first year and have grown extremely well. They are now 6 to 8 feet high and scarcely a dead plant among them. All the other plants were put down during the present official year; the pinus excelsa and oak during the rains and the others in the cold weather. A few of the pinus excelsa died at the close of the rains, but the other plants are apparently doing well.

"23. *Kunyara.*—This is old village cultivation in chir and scrub oak forest. The soil is mostly shallow and poor. The first and only planting was in 1879-80, when the following trees were planted:—

Deodar	10,675
Ash	1,040
	11,715

Very few of the plants have died, but, owing to the poorness of the soil, neither have they made much progress. No doubt, as the ground gets better covered with decayed grass and weeds, the plants will grow better.

"24. *Garsáni.*—This is a small potato cultivation in the oak forest and was planted in 1879-80 with 4,800 deodar. There are very few vacancies and the plants, which are healthy and thriving, are mostly 3 to 5 feet high.

"25. *Kilkhet.*—This is a large level field on the east bank of the stream that divides the Kunyara and Dalmoti forests. The soil is deep and good, but rather stiff and liable to dry up and crack after the rains. In 1878-79 it was sown with gum seed from Australia. The seed did not vegetate very well, and though the plants were carefully cultivated and at the close of the rains covered with grass to protect them from drought and frost, many died the first winter, and the remainder scarcely survived the heat and drought of the following April and May. As gums planted from the nursery were not likely to thrive any better than the seedlings had done, it was decided to plant sweet chestnuts: 520 good strong plants were therefore put down in 1879-80 and 89 more in 1881-82. These were carefully cultivated each year and made good growth during the rains, but with very few exceptions died down to the ground again in the winter. This having occurred each year, I had the plants removed to the nursery this spring and purpose sowing chir seed in their place.

"26. *Batehyara.*—This is a little patch of old cultivation, a little higher up the stream than Kilkhet, and was sown with gums in 1878-79. These failed, and the ground was afterwards planted with 245 sweet chestnuts, which succeeded no better than those planted at Kilkhet. They also have been removed to the nursery and their place will be sown with chir seed.

"27. These comprise all the plantings in the closed reserve forests under the Forest Department. The other plantings, consisting mainly of deodar and gums, made in the station and on the Troup Estate, are now under the charge of the Cantonment Magistrate.

"28. In 1874, 64,870 deodar were planted at Chaubattia and have grown well. The gums at Chaubattia are constantly being broken by snow and look very ragged. In the station, where there is not much snow usually, the gums have done better, but the unusually heavy fall in February broke them also very badly.

"29. From the foregoing remarks it will be apparent that only under the most favourable conditions of soil and moisture has any success been attained with either acacias or gums; and as they are difficult to establish and, when they have attained a good size, extremely liable to be broken by snow, their continued cultivation in the Ráuikhet forests does not appear either encouraging or desirable.

"In cool, rich oak-forest land like Jainoli both horse chestnut and walnut succeed admirably; but where the soil is light and poor, as at Ghingaru-khal, they do not

thrive. The pinus excelsa and deodar are hardy, easy to transplant and thrive everywhere except in very poor soil, which can always be devoted to chir. Ash, too, grows well where soil and situation are favourable; the sweet chestnut thrives in the deep and comparatively cool level fields at Jakhdeo, but becomes an herbaceous plant when transferred to the low, hot but frosty flats at Kilkhet and Batehyara." At the nursery, which was originally oak forest and about 6,500 feet above sea-level, the sweet chestnut grows vigorously and is not injured by frost."

69. During the latter part of May I saw every one of these plantations and was very much pleased with the appearance of most of them. Gum trees are decidedly a failure at Ránikhet, and as yet our attempts to grow the Australian acacias there have not been successful. They should not be utterly condemned, though, until we see the result of those raised in pots. Last winter was an unusually severe one, and the pot-raised acacias at Dalmoti were, as Mr. Craw says, killed down to the ground. But I saw them some three weeks after he did, and then every plant which I looked at was throwing out vigorous shoots from the roots.

A great many deodars have already been planted in the "reserved" forest, and I do not think we ought to plant any more. *Fuel*, not timber, is the difficulty at Ránikhet, and deodar is a very bad fuel wood. In the cool, rich oak-forest land such deciduous trees as ash, walnut and horse-chestnut grow well and yield excellent fuel. In the poorest chír-forest land chír is the best tree to grow; and in the better quality chír-forest land, which is not good enough for deciduous trees, probably pinus excelsa is the most suitable.

70. **Kumaun division.**—A few acres on several small clearances in the Chilkia and West Kotah ranges, and at Jounla Sál, were ploughed and sown with seeds of Sál, shisham, sandan, dhoura, gosam, tún, amaltas and khair during the years 1878 to 1881, as an experiment to find out if such rough and inexpensive measures would succeed. They have not succeeded. It is reported that only a few shisham are alive; and the experiment has proved that to re-forest denuded areas is not such a simple affair as some people suppose. It need not be tried again.

During the same period (1878 to 1881) sál and some other kinds of seed were sown on the three deserted villages, in the West Kotah range, of Rámpur, Leti and Chopra. The old fields were put under grain cultivation to keep down the coarse grass and then the tree seed was sown in lines on raised ridges. It is impossible to say what number of seedlings are alive, for the grass has grown very long; but there certainly are a great many sál, and those which are still alive are now past danger. An excellent wooden aqueduct, 2,542 feet in length, has been constructed at Chopra during the year, by which the whole of the large plateau can be irrigated, and there is now no doubt that we shall be able to cover this, at present profitless land, with sál forest; for our experiments have proved that, with irrigation, sál is not at all a difficult tree to produce artificially. We intended to sow about 5 acres at Chopra with sál in May and June this year (1883), but there was no seed at all to be got, so we could not do it.

In the Rámnagar garden we have the following trees:—

10 Swietenia mahogani.
10 Sterculia Tricosiphon.
15 Rhus Thunbergii.
7 Catalpha Bignonioides.

and some 3,000 mulberries there and at Chopra, Leti and Chorgalia.

During the year Rs. 643 was spent on plantations, *viz.*, Rs. 500 on the Chopra aqueduct and Rs. 143 on other work.

71. **Garhwál division.**—The little mango garden at Primpuri has been abandoned, the land is low and water-logged and most of the trees have died. Part of the camping ground at Saneh has been planted with common mango trees to form a grove and Rs. 34 spent on it.

72. **Ganges division.**—Rs. 215 was spent in digging a large ditch and bank round the Chila camping ground, and replacing vacancies in, and cultivating, the mango groves there and at Haldúkhata.

73. **Jhánsi division.**—Four hundred and thirty-one acres of old plantations were maintained, but the Deputy Commissioner says nothing about their condition. Nine acres of land in the Sukwan Dukwan forests were planted with 600 teak and sisham trees, and 5 acres of land were sown with babúl, teak and mahúa seed in the Babina, Magarpur, Ganupura, Bhasneo and Bagoro forests.

These operations cost Rs. 501, the details being :—

	Rs.	a.	p.
Collecting seed	29	14	0
Carting	11	0	0
Digging	10	2	0
Sowing	10	15	0
Fencing	9	14	0
Watering	429	1	11

74. **Lalitpur division.**—Rs. 50 was spent on experimental sowing of teak and planting bamboos at Kachnoda, but they were not successful.

75. **Bánda division.**—Rs. 3-5-6 was spent on sowing babúl and mahúa seed in Blocks I. and II.

76. The following is a summary of the expenditure on artificial reproduction during 1881-82 and 1882-83 :—

Divisions.	1881-82.	1882-83.	
	Rs	Rs.	
Naini Tal	624	525	*Vide* forms No. 50 for 1881-82 and 1882-83.
Ranikhet	1,856	2,300	
Kumaun	561	643	
Garhwál	232	112	
Ganges	38	245	
Jhánsi	318	501	
Lalitpur	...	50	
Bánda	...	3	
Total ..	3,619	4,379	

(7)—Cutting of Creepers, &c.

77. **Kumaun division.**—Eight thousand nine hundred creepers were cut by forest guards ; in 1881-82 also no money was spent on creeper-cutting, the work having been done by forest guards.

78. **Garhwál division.**—The whole area in which fellings were made, 1,037 acres, was cleared of creepers, and also a small area near Lidpáni in the South Pátli Dún range: Rs. 100 was spent.

In 1881-82 the sum spent on creeper-cutting was Rs. 42.

(8)—Experiments and Exotic Trees.

79. **Kumaun division.**—During the spring of 1881-82 sample plots of sál forest near Chorgalia, in Eastern Kumaun, were, by Dr. Brandis' suggestion, fenced, and all the trees were numbered and measured. The object of this experiment is to determine the rate of growth of the sál tree, and periodical (half-yearly) measurements are taken and recorded. The area of these plots is about half an acre each.

80. The little that might have been said under this head regarding exotic trees has already been reported under (6) artificial reproduction.

(9) — COMMUNICATIONS AND BUILDINGS.

81. **Naini Tal division.**—There are 21 miles 32 chains of existing roads in this division of from 3′ to 7′ in breadth, all of which were kept in repair at a cost of Rs. 343. The following is a list of the buildings which existed on the 31st March, 1882 :—

		Rs.
1.	Timber shed, original cost	2,560
1.	Forester's hut at the timber shed	252
1.	Charcoal store	2,344
	Lime kilns	256
1.	Lime store and chaukidár's hut	167
1.	Ranger's hut	271
1.	Timber works hut in Hinan forest	580
1.	Forester's hut on Cheena	50
1.	Forest guard's hut	27

The cost of keeping the above in repair was Rs. 362.

The inspection hut in the Maulani forest was completed (including out-offices) during the year for a total cost of Rs. 1,652. Rs. 891 of this amount was charged in the accounts for 1881-82, Rs. 554 in 1882-83, and the balance (Rs. 207) is the cost of the timber used. The total expenditure on buildings was Rs. 917.

82. **Ránikhet division.**—The 31 miles and 77 chains of existing bridle roads were repaired at a cost of Rs. 133.

A cart road from the barracks to the Ránikhet fuel depôt, length 26 chains and 54 feet, was constructed for the Forest Department by the Public Works Department for Rs. 956. The reason why the construction was entrusted to the Public Works Department was that the road is within cantonments and, therefore, it had to be made on the Public Works Department standard pattern.

The Olobaga and Jakhdeo bridle roads were shortened by making new bits 59 chains in length, which cost Rs. 33.

The total expenditure on roads was Rs. 1,122.

The following is a list of the buildings which existed on the 31st March, 1882 :—

		Rs.
1	Rest-house (forest lodge) at Chaubattia, original cost	1,989
1	Forester's hut and chauki at Deolikhet	300
1	Small inspection hut at Dalmoti	277

The annual repairs of the above cost Rs. 61. During the year a forest guard's hut was erected at Airadeo, which cost Rs. 74.

The total expenditure on buildings was Rs. 135.

83. **Kumaun division.**—Four hundred and ninety-four and a half miles of existing roads and paths, a list of which is given below, were repaired at a cost of Rs. 11,897.

	Miles.
Cart roads A. VII. *a*	241¾
Bridle roads A. II. and A. VII. *a*	76½
Fire-line and foot-paths A. VIII. *a*	173¼

Twenty-five miles 8 chains of new cart roads were constructed at a cost of Rs. 1,662 :—

	Miles.	Chains.
From Rámpur to Kotah Bagh	3	50
In Jounla Sál Sot	4	55
In Hátgad Sot	2	67½
At Birgot	2	53
At Bhargot	2	75
In Lohar Sot	4	42½
In Kúmia Sot	3	65

The total expenditure on roads was Rs. 13,559.

The following is a list of the buildings which existed on the 31st March, 1882:—

	Rs.
Rámnagar forest house, original cost	1,600
" Office building	500
" Khám tahsíl chauki	697
" Timber shed	2,500
" Depôt building	700
" Out-houses	300
Mohan rest-house	1,000
Haldwa khám tahsíl chauki	300
Garapu	300
Haldwáni	500
Lalkúa	484
Chorgalia rest-house	1,000
Chorgalia depôt house, original cost	354
" out-houses "	102
Naini Tal office building	1,400
" out-houses	462

A 2nd class rest-house at Bhalon, in the West Kotah range, was commenced and completed during the past working season.

It cost Rs. 2,836, of which Rs. 1,025 was charged to the accounts of the year under report.

The Chorgalia tool house was very nearly completed, but the cost of it will come into the 1883-84 accounts.

The amount spent on buildings during the year was Rs. 2,746.

84. Garhwál division.—The following is a list of the lengths of the different kinds of existing roads and the cost of repairing them during the year :—

			Rs	
169 miles 56 chains	cart roads cost for repairs	6,305		
54 " 20 "	bridle " "	721		
10 " 24 "	foot-paths " "	65	A.II.	
256 " 37 "	fire-lines and foot-paths "	7,789	A.VIII.*a*.	

Ten miles 29 chains of cart roads, 10 feet broad, were constructed for Rs. 1,732, as follows :—

				Rs.	
Magnukhal road—length		73	chains—cost	247	A.VII.*a*.
Mandalti Sot "	8 miles	40	chains "	650	"
Lakrawala "	5 "	0	" "	600	"
Gonjora Sot road extension	0 "	76	" "	235	"

The Palain valley road was completed during the year. The total length is 16½ miles, with a breadth of from 12 to 14 feet. It has cost altogether Rs. 22,089, which includes the repairing of the six miles made in 1881-82. Rs. 9,653 were spent on it during the year.

The temporary bridge over the Rámganga at Boxar was carried away by a flood in January, but was rebuilt. The cost of twice building it was Rs. 261.

Roads and bridges cost Rs. 10,024 during the year.

The only existing buildings in this division on the 31st March, 1882, were : —

A timber shed at Kalagarh, original cost Rs. 3,641.

A room at one end of the ruined Bogsar saw mill the cost of which is not known.

The repairs of these cost Rs. 154.

Rs. 2,346 was spent on the 1st class rest house at Dhikala during the year.

The house itself was almost finished by the end of May, 1883, and the out-offices will be built next winter.

Total spent on buildings, Rs. 2,500.

85. **Ganges division.**—The following list shows the lengths of the different kinds of existing roads and the cost of repairing them during the year :—

		Rs.
74 miles of cart roads cost for repairs	...	508
55 " bridle " " "	...	441
91 miles of the Bhagirathi valley bridle road, in Native Garhwál, cost for repairs	...	2,316

The heavy expenditure on the Bhagirathi road is accounted for by the fact that this year for the first time the entire repairs were, according to Government orders, undertaken by the Forest Department, the Rája of Tehri giving no assistance either in work or money, and the road having fallen into a very bad state of repair during the time he was supposed to keep it in order.

Eight miles of new cart roads from Láldhang to Peli and from Bhai Khan to Chila—were constructed for Rs. 90.

Total spent on roads during the year, Rs 3,445.

The following is a list of the existing buildings on the 31st March, 1882 :—

Durrasu rest-house.
Barahat "
Batwári "
Jhalla "

The original cost of these cannot be obtained in time for this report ; they are all in the Bhagirathi valley road and were built some 12 or 15 years ago. Rs. 102 was spent on repairs of the above.

Rs. 3,418 was spent on the 1st class rest-house at Chila during the year. By the end of May, 1883, the house was almost finished. The out-offices will be built next winter.

Total spent on buildings during the year, Rs. 3,552.

86. **Jhánsi division.**—The Deputy Commissioner has not given a list of existing roads.

The forest road leading from Dukwan to the Gurari nadi, nine miles in length, was repaired at a cost of Rs. 25. This was the only expenditure on communications.

Rs. 21 was spent on repairs to huts in the Jhánsi godown.

The inspection hut in the Dukwan forest was completed at a cost of Rs. 415.

A well was commenced near the Dukwan hut, the cost of which will be stated in next year's report.

Total expenditure on buildings, Rs. 436.

87. **Lalitpur division.**—Rs. 100 was spent on repairs to the inspection hut at Morari and the 13 forest guards' chaukis, and Rs. 40 on improvements to the Morari well.

An inspection hut was also built at Deogarh for Rs. 200.

Total expenditure on buildings, Rs. 340.

88. **Bánda division.**—During the year Rs. 38 was spent on repairing the Tiliyasih cart road, which is about 12 miles long, Rs. 30 on repairing the Mankipur depôt and the Kuluha rest-house, and Rs. 10 on clearing wells.

		Rs.
Total spent on communications	...	38
" " buildings	...	40

CHAPTER IV.

YIELD AND WORKING.

1.—Departmental operations.

89. The following statements show the timber operations of the year which have been conducted departmentally :—

(a)—Trees felled by Departmental Agency (selection fellings), compared with the results of the previous year.

	Sál.		Sein.		Deodar.		Box.		Teak		Chir.		Oak.		Ash.		Rhododendron.		Jaman.		Haldu.		Mahúa.		Miscellaneous.		Total, 1882-83.		Total, 1881-82.	Difference.		Remarks.
	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Cubic feet.	More cubic feet.	Less cubic feet.	
Naini Tal ...	...	...	...	...	...	...	...	...	...	...	1,250	83,536	90	14,54	3	45	435	12,620	...	...	...	...	...	...	92	1,895	1,870	12,636	100,237	12,399	...	To meet increased demand for building timber.
Ránikhet ...	...	...	...	...	...	...	...	...	...	...	5,012	44,808	363	9,995	...	...	...	...	...	...	...	...	...	...	471	8,094	5,846	62,897	66,562	...	3,665	Less demand than last year.
Kumaun ...	1,872	47,020	568	9,736	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26	324	25	496	...	...	...	...	2,491	57,576	66,824	...	9,248	Ditto
Garhwál ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27,390	...	27,390	There were no departmental fellings.
Ganges ...	50	710	518	18,128	...	...	...	...	...	...	...	...	...	...	...	...	...	...	103	2,758	...	...	...	...	10,968	51,885	11,639	73,481	165,368	...	91,887	Chiefly owing to 30 deodar sleepers having been prepared. In 1881-82 there were 77,490 cubic feet of deodar which was sawn into sleepers.
Jhánsi ...	...	...	...	...	...	...	...	...	55	385	...	...	...	...	...	...	...	...	...	...	...	...	...	...	416	624	471	1,009	304	705	...	To meet increased demands
Lalitpúr ...	...	...	...	...	...	...	...	...	20	220	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,554	5,331	3,574	5,551	878	4,673	...	Ditto.
Bánda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	175	...	...	7	175	...	175	...	Ditto.
Total ...	1,922	47,730	1,086	27,864	...	...	...	...	75	605	6,262	128,344	453	24,535	3	45	435	12,620	129	3,082	25	496	7	175	15,500	67,829	25,808	3,13,325	421,563	17,952	132,190	
																										Net difference ...				...	114,238	less cubic feet of timber felled in 1882-83 by selection fellings.

The classification of trees will be found in the abstract at foot of Form No. 58.

In the Ránikhet and Kumaun divisions fellings were conducted in accordance with working-plans. In all other divisions the fellings were in accordance with the annual plans of operation.

90. (*b*)—The outturn of timber and other produce cut and collected by Government agency is summarized in the following figures, which are compared with those for 1881-82 :—

1882-83.			1881-82.		
Timber.					
	No.	Cubic feet.		No.	Cubic feet.
Sál logs	11	609	Sál logs	498	26,179
Chír logs	1,511	14,750	Haldú logs	4	156
Sál sleepers	11,483	15,311	Chír logs	2,740	22,067
Haldú sleepers	50	75	Deodar sleepers	38,515	51,353
Sál karis...	18,787	30,813	Sál karis	15,638	25,380
Haldú karis	264	419	Haldú karis	1,351	2,196
Sein karis	14,234	24,474	Sein karis	30,830	48,592
Chír karis	3,361	5,303	Chír karis	3,097	5,138
Jaman karis	1,850	2,243	Jaman karis	1,028	1,651
Kukat karis	3,114	5,037	Dhauri karis	2	3
Tún karis	2	3	Kukat karis	5,936	9,653
Ash karis	8	11	Sál planks	30	40
Miscellaneous karis... ...	65	98	Chír planks	23,474	12,578
Haldú planks	6	2	Sál joras and ballis... ...	61	125
Sein planks	54	59	Sál scantlings	1,002	1,509
Chír planks	17,735	9,477	Chír scantlings	13	3
Alder planks	152	147	Chír ballis and posts ...	1,584	7,585
Sisham planks	17	12	Sisham and kukat scantlings ...	11,049	18,889
Tún planks	86	90	Boxwood pieces	524	642
Ash planks	51	84	Ash pieces	2	6
Sál joras and ballis... ...	238	933	Miscellaneous ballis ...	21,550	32,463
Kukat ballas, ballis, and tors ...	22,374	47,145	Miscellaneous pieces ...	3,843	15,261
Chír ballis and slabs ...	969	523			
Miscellaneous ballis ...	12,264	14,[illegible]			
Miscellaneous pieces ...	8,848	2,547			
Total ...	117,034	174,393	Total ...	162,766	281,469

1882-83.		*Other produce.*	1881-82.		
Firewood	92,900	Maunds.	Firewood	152,418	Maunds.
Charcoal	8,086	"	Charcoal	7,744	"
Bamboos	1,156,939	No.	Bamboos	1,248,847	No.
Kiras	5,705	"	Kiras	3,948	"
Kurias	188,845	"	Kurias	301,507	"
Hides	9	"	Hides	246	"
Lime	2,305	maunds.	Lime	4,654	maunds.
Mahúa	231	"			
Aonla	20	"			
Confiscated drift and waif wood	1,153	cubic feet.	Confiscated drift and waif wood	8,003	cubic feet

The outturn of timber for 1882-83 is less than that of the previous year by 107,000 cubic feet. A reference to form No. 59 of the years 1881-82 and 1882-83, from which the above summary has been prepared, will show that the following divisions prepared less timber by the quantities shown against them :—

	Cubic feet.
Naini Tal Division	9,000
Kumaun "	9,000
Garhwál "	27,000
Ganges "	22,000
Lalitpur "	5,000
Bánda "	36,000
Total ...	108,000

Naini Tal division.—Sawing work was checked owing to the severe winter, and to the Oudh and Rohilkhand Railway Company having enticed the sawyers away by an offer of higher wages. They came back again, though, soon after the end of the financial year, and then the supply became equal to the demand.

Kumaun division.—Owing to the great falling off in depôt sales and to the large stock on hand less timber was prepared than usual.

Garhwál division.—There were no departmental timber operations in this division. All timber was cut and exported by private enterprise.

Ganges division.—The demand for timber was not so brisk as in 1881-82. Timber is cut only on indent in this division and the indents were less than usual.

Lalitpur division.—No large stock is kept in this division. The amount cut was sufficient to meet the demand.

Bánda division.—The decrease shown is no comparison at all, for the figures of 1881-82 comprised the amount cut during the three years 1879-80 to 1881-82, Bánda having been constituted a forest division during 1881-82.

Firewood.—The decrease of 59,000 maunds in the outturn of firewood is accounted for in the Ránikhet division, no troops having remained in the station during the winter.

Bamboos show a decrease of 91,908 in number, 61,000 in Lalitpur, and 30,000 in Bánda.

The Bánda decrease is only a nominal one, owing to the produce for the three years 1879-80 to 1881-82 having been all shown in the return for 1881-82, in which year Bánda was made a forest division.

The decrease in kiras and kurias (branches or coppice shoots) is immaterial. Jhánsi and Lalitpur are the only divisions which supply them, and the demand varies considerably.

Confiscated drift and waif wood.

The decrease is in the Garhwál and Ganges divisions. The 1881-82 collections were increased by the extraordinary floods of 1880.

91. (c)—The timber and other produce received from forests in sale depôts compares as follows with the results for 1881-82 :—

Timber.

1882-83.	No.	Cubic feet.	1881-82.	No.	Cubic feet.
Sál logs	118	9,590	Sál logs...	397	17,492
Sál sleepers	11,476	15,301	Haldú logs	4	156
Sal karis...	21,749	35,685	Sál karis	13,942	22,496
Haldú karis	415	659	Haldú karis	1,232	2,009
Sein karis	9,528	15,417	Sein karis	41,923	68,944
Chír karis	2,941	4,653	Chír karis	5,312	8,452
Jaman karis	375	594	Jaman karis	1,117	1,796
Tún karis	2	3	Dhauri karis	28	44
Ash karis	7	9	Kukat karis	6 795	10,980
Haldú planks	6	2	Sál planks	30	40
Sein planks	43	46	Haldú planks	174	130
Chír planks	21,105	11,945	Chír planks	19,251	10,543
Alder, sisham and tún planks...	255	249	Sál joras and ballis	275	619
Sál joras	87	135	Sisham and Kukat karis ...	14,849	24,331
Chír ballis and slabs ...	155	106	Boxwood pieces	153	222
Miscellaneous ballis... ...	5,589	5,818	Ash pieces	2	46
Miscellaneous pieces ...	2,190	406	Miscellaneous ballis ...	4,194	7,240
Total ...	76,036	1,00,618	Total ...	109,676	1,75,300

Other produce.

Firewood	62,140	maunds.	Firewood	1,20,383	maunds.
Charcoal	8,066	"	Charcoal	7,744	"
Bamboos	348,764	number.	Bamboos	252,209	number,
Kiras	5,700	"	Kiras	3,948	"
Kurias	63,165	"	Kurias	33,860	"
Lime	593	maunds.	Lime	2,714	maunds.

The details of the above are given in Form No. 60.

The receipts of timber in sale depôts are 74,000 cubic feet less in 1882-83 than in 1881-82.

	Less.	More.	
	c. ft.	c. ft.	
Naini Tal division	2,000	...	
Kumaun „	...	20,000	
Garhwál „	39,000	...	
Ganges „	53,000	...	
Total ...	94,000	20,000	net decrease, 74,000

Garhwál division.—There were no timber operations conducted by departmental agency. The small amount (2,280 cubic feet) of Sein karis received in depôt was from fellings of the previous year.

Ganges division.—Only 2,659 cubic feet of the timber prepared during 1882-83 was received in depôt before the close of the year.

Firewood.

The whole of the decrease of 59,000 maunds of firewood occurs in the Ránikhet division; the decrease is owing to the absence of the troops during the winter.

Bamboos.

The increase of 86,000 under this produce occurs in the Lalitpur division, and is owing to more carts having been employed than during the previous year.

92. *(d).*—The following is a summary of the sales of timber and other produce cut and collected by Government agency, compared with the sales of the previous year:—

Timber.

1882-83.	No.	Cubic feet	1881-82.	No.	Cubic feet.
Sál logs	14	692	Sál logs	114	5,407
Haldú logs	2	92	Sál karis	12,245	19,229
Sál sleepers	1,100	1,466	Haldú karis	201	322
Sál karis	5,309	8,333	Sein karis	31,432	52,700
Haldú karis	749	1,176	Chír karis	3,429	6,216
Sein karis	24,962	40,288	Jaman karis	826	1,300
Chír karis	5,060	8,255	Dhauri karis	49	78
Kukat karis	4,028	6,547	Kukat karis	2,929	4,727
Tún karis	2	3	Haldú planks	252	125
Ash karis	3	7	Chír planks	17,152	10,169
Sál planks	30	40	Sál joras and ballis ...	267	595
Haldú planks	175	101	Sisham and kukat scantlings,	14,849	24,331
Chír planks	22,252	12,323	Boxwood pieces ...	153	222
Alder, sisham and tún planks,	250	246	Ash pieces	2	6
Sál joras	85	128	Miscellaneous, ballis, &c. ...	3,938	7,266
Chír ballis and slabs ...	66	46			
Miscellaneous ballis ...	4,550	5,150			
Miscellaneous pieces ...	1,562	616			
Total ...	70,199	85,509	Total ...	87,338	132,693

Other produce.

Firewood	55,835	maunds.	Firewood	1,17,857	maunds.
Charcoal	6,232	„	Charcoal	7,495	„
Bamboos	373,163	number.	Bamboos	242,175	number.
Kiras	3,655	„	Kiras	3,913	„
Kuriás	47,225	„	Kuriás	45,784	„
Hides	7	„	Lime	1,923	maunds.
Lime	304	maunds.			

The details for divisions will be found in Form No. 61.

Forty-seven thousand one hundred and eighty-four cubic feet less timber was sold during the year than in 1881-82.

	More c. ft.	Less c. ft.
Naini Tal division	4,500	...
Kumaun „	...	6,000
Garhwál „	...	6,000
Ganges „	...	38,000

Ganges division.—Last year the timber supplied to the Ganges Canal passed through the sale depôts, whereas this year it was sold "locally." This accounts for

a decrease of about 17,000 cubic feet only, as less timber was supplied this year than last. The remaining 21,000 cubic feet is accounted for by the year's fellings for merchants not having reached depôt in time to be sold before the close of the year.

Firewood.

The whole of the decrease (64,000 maunds) occurs in the Ránikhet division and is accounted for in the foregoing statements (*b*) and (*c*).

Bamboos.

One hundred and thirty thousand nine hundred and eighty-eight more bamboos were sold than in 1881-82, very nearly the whole of the increase occurring in the Lalitpur division.

93 (*e*).—The following shows the timber and other produce sold "locally," compared with the sales "locally" of 1881-82 :—

Timber.

1882-83.	Number.	Cubic feet.	1881-82.	Number.	Cubic feet
Sál trees	2	13	Chír scantlings ...	13	3
Sál ballas	50	644	Miscellaneous ballis, &c. ...	19,855	38,426
Sal timber (pieces) ...	21	51	Confiscated drift and waif wood.	3,175	8,003
Chír ballis and slabs ...	814	417			
Kukat ballas, ballis and tors,	9,631	18,725			
Khair timber (pieces) ...	120	225			
Boxwood pieces ...	4	6			
Miscellaneous karis ...	65	98			
Miscellaneous ballis ...	7,409	8,719			
Miscellaneous pieces ...	1,611	503			
Confiscated drift and waif wood.	114	818			
Total ...	19,841	30,219	Total ...	23,043	46,432

Other produce.

Firewood	33,807	maunds.	Firewood	33,792	maunds.
Bamboos	801,313	number.	Bamboos	976,638	number.
Kurias	125,680	"	Kurias	267,647	"
Hides	37	"	Hides	247	"
Petara	1	"	Lime	3,465	maunds.
Lime	926	maunds			

The details are shown by divisions in Form No. 61. Less timber to the amount of 16,000 cubic feet was removed "locally" than last year.

	More, cubic feet.	Less, cubic feet.	
Naini Tal division	400	...	
Kumaun "	...	1,300	
Garhwál "	...	3,400	
Ganges "	17,000	...	
Lalitpur "	2,400	...	
Bánda "	...	31,500	
Total ...	19,800	36,200	Less. 16,000

Ganges division.—This year the Northern Division, Ganges Canal, was supplied with its timber "locally."

Bánda division.—Owing to the accumulated sales of 1879-80 to 1881-82 being all shown in the accounts for 1881-82, the year the Bánda Forests were constituted a division of this Circle.

Bamboos.

One hundred and seventy-five thousand three hundred and twenty-five fewer bamboos were sold than in 1881-82.

Lalitpur shows a decrease of 151,000
Bánda " " of 24,000

The Bánda decrease is owing to the sales for the three years 1879-80 to 1882-83 having been all credited in the year 1882-83.

The decrease in the Lalitpur division is not explained by the Deputy Commissioner. Probably it is due to the large increase sold from depôts.

94 (*f*).—The following statements show the depôt transactions and local sales of the years 1882-83 and 1881-82.

Description of timber and other produce.	Balance at commencement of the year.		Received from the forests in depôts		Received from the forests and sold locally.		Received by transfers from sale depôts.		Total		Removed by purchasers from depôts.		Sold locally.		Lost or written off as useless.		Used by the department		Transferred to other sale depôts.		Balance at close of the year.		Total.	
	c. ft	Value.	c. ft	Value	c. ft	Value.	c. ft	Value	c. ft.	Value	c. ft.	Value.	c. ft	Value.	c ft.	Value.	c ft.	Value	c. ft.	Value.	c. ft	Value.	c ft	Value.
		Rs.		Rs.		Rs.		Rs		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber c ft....	100,471	93,457	100 618	84,127	30 219	7,525	6,042	4,738	237,350	189,843	85,509	56,514	30,219	7,525	27	20	418	177	6,042	4,738	115,135	120,869	237,350	189,843
Firewood mds....	4,622	1,574	82,140	22 215	33,807	12,691	...	...	100,769	36,480	55,835	19 889	33,807	12,691	...	...	...	...	...	...	11,127	3,909	100,769	36, 80
Charcoal „ ...	6,918	6,564	8,066	7,709	...	...	...	...	15,014	14,277	6,232	5 851	..	...	...	...	192	168	...	...	8,590	8,258	15,014	14,277
Bamboos No. ...	30,944	224	348,764	1,986	801,313	2,845	1,000	5	1,182,021	5,030	373,163	2,120	801,313	2,845	...	...	...	...	1,000	5	6,545	60	1,182,021	5,030
Kiries „ ...	675	42	5,700				...		6 375		3,655				...		...		...		2,720	140	6,375	
Kurias „ ..	7,991	18	63,165		125,680		...		196,836		47,225		125,680		...		679		...		23,252	40	196,836	
Baskets „ ..	94	3	...		...		...		94		...		...		...		...		...		94	3	94	
Hides „ ...	...	...	7		37		...		44		7		37		...		...		...		...	...	44	
Petara „ ..	...	...	...	446	1	652	...	...	1	1,514	...	200	1	652	...	...	...	17	...	...	...	...	1	1,514
Pat loads...	...	...	...		4		...		4		...		4		...		...		...		...	...	4	
Mahúa mds....	...	...	...		231		...		231		...		231		...		...		...		..	..	231	
Lime „ ...	659	353	593		926		...		2 178		304		926		...		24		...		924	462	2,178	
Aonla „ ...	...	...	...		20		...		20		...		20		...		...		...				20	
											...	84 574	...	23,713										
Total ...	...	102,235	..	116,453	...	23,713	...	4 749	...	247,144	108,287				...	20	...	362	...	4,743	...	133,732	...	247,144

1881-82.

Timber c ft .	59,001	58,258	175,300	141,208	46 412	3,892	2,240	154	282,973	203,512	132,693	105,580	46,432	3,192	...	...	1,137	4 3	2,240	154	100 471	93 457	282 973	203,5 2
Firewood, mds ...	2 296	544	12,343	43 562	33,79.	12,805	...	...	156,471	56 911	117,85	42,532	33,792	12,805	...	...	...	...	...	...	4,822	1,574	166 471	56 911
Charcoal „ ...	7,566	7,290	7,714	7 24	..	...	...	...	15,310	14,532	7 495	7,205	..	.	...	...	867	759	...	..	6,9	6,588	15,310	14,532
Bamboos No. ..	10,910	86	262,209	1,472	976,638	3,477	...	...	1,249,757	5,035	242,175	1,334	976,638	3 477	...	...	...	...	...	...	30,944	224	1,249,757	5,035
Kiries „ ..	640	40	3,948	219		...	...	...	4,588	289	3 913	247	.	.	...	...	...	...	...	...	675	42	4,588	289
Kurias „ ...	19,865	113	33,860	180	267,647	529	...	...	321,372	822	45,734	162	267,647	642	...	...	...	...	...	...	7,991	18	32 372	822
Baskets „ ...	94	3	...	...	...	...	...	...	94	3	...	...	...	...	...	...	...	...	...	...	94	3	94	3
Hides „ .	...	...	...	...	247	153	...	...	247	153	...	...	247	153	...	...	...	...	...	...	...	...	247	153
Mats „ ...	...	...	..	...	16	2	...	..	16	2	...	...	16	2	...	...	...	...	...	...	...	...	16	2
Lime mds. ...	...	...	2,714	1,500	3,465	849	...	...	6,179	2,357	1,922	1,089	3,465	849	...	...	132	66	...	...	659	353	6,179	2,357
Wooden pots No.	...	...	...	...	8	4	...		8	4	...	..	8	4	...	...	...	...	...	..	...	...	8	4
											...	158,149	...	21,824										
Total ..	...	65,334	...	195,421	...	21,711	...	154	...	283,620	179,973				...	...	...	1,258	...	154	...	102,235	...	283,62

The depôt and local sales were Rs. 71,686 less than in the year 1881-82.
The difference in depôt transactions is fully accounted for under the foregoing statements (d.) and (e).
The value of timber, &c., in hand at the close of the year is Rs. 31,497 more than it was at the close of 1881-82.

2.—REMOVAL OF PRODUCE BY PURCHASERS.

95. (*g*).—The following statement shows the trees cut and removed by purchasers during the year 1882-83, followed by a second statement giving the same information for 1881-82:—

Divisions.	Sál.		Sein.		Chir.		Alder.		Miscellaneous.		Total.	
	No.	c. ft.	No.	c. ft	No.	c. ft.	No.	c. ft	No.	c. ft.	No.	c. ft.
Naini Tal ...	...	...	...	...	16	134	2	93	677	684	695	911
Ránikhet ...	...	...	...	...	105	8,288	...	...	...	...	105	8,288
Kumaun ...	2,691	34,143	...	...	...	...	...	...	2,245	40,090	4,936	74,233
Garhwal ...	1,720	52,417	144	4,384	...	...	...	...	2,825	4,652	4,689	61,393
Ganges ...	45	986	25	550	2	32	...	...	1,401	7,271	1,473	8,844
Jhánsi ...	...	...	...	...	...	...	...	...	64	96	64	96
Lalitpur ...	...	...	...	...	...	...	...	...	7,242	10,894	7,242	10,894
Bánda ...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	4,366	87,545	169	4,880	123	8,454	2	93	14,454	63,687	19,114	164,659

1881-82.

Divisions.	Sál.		Sein.		Chir.		Alder.		Miscellaneous		Total.	
	No.	c ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.
Naini Tal ...	...	...	...	...	3	48	...	...	5,431	5,431	5,434	5,479
Ránikhet ...	...	...	...	...	254	14,952	...	...	...	...	254	14,952
Kumaun ...	2,440	30 803	1	30	...	...	...	...	1,591	64,382	4,032	95,215
Garhwál ...	1,855	46,443	36	3,788	...	...	...	...	19.082	31,417	20,973	81,648
Ganges ...	...	...	...	...	277	2,770	...	...	349	8,043	626	10.813
Jhánsi ...	...	...	...	...	...	...	...	...	176	264	176	264
Lalitpur ...	...	...	...	...	...	...	...	...	10,501	21,671	10 501	21,671
Bánda ...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	4,295	77,246	37	3,813	534	17,770	...	...	37,130	131,208	41,996	220,037

The important differences occur in the Kumaun and Garhwál divisions under "miscellaneous," *viz.* :—

Kumaun ... ... 24,000 cubic feet less.

Garhwál ... ... 27,000 ditto.

It will be noticed that in the Kumaun division, 2,245 miscellaneous trees were cut in 1882-83, the yield of which was 40,090 cubic feet, and that in 1881-82, 1,591 trees were cut which yielded 64,382 cubic feet. The following statement will explain this:—

"*Miscellaneous*" *trees cut and removed by purchasers during the years* 1881-82 *and* 1882-83.

Name of trees.	1881-82.		1882-83.			
	No.	c. ft.	No.	c. ft.	More, c. ft.	Less, c. ft.
Sisham	19	615	13	208	...	407
Haldú	980	47,892	490	17,299	...	30,593
Jamun	1	40	16	312	272	...
Dhauri	126	4,210	400	11,250	7,040	...
Tún	...	...	26	1,053	1,053	...
Miscellaneous ...	465	11,625	1,300	9,968	...	1,657
Total ...	1,591	64,382	2,245	40,090	8,365	32,657

The sale of miscellaneous trees varies very much almost every year. There was an exceptionally large demand for *haldu* in 1881-82.

The decrease in Garhwál is due to the demand for khair (acacia catechu) ckúraps (wooden sugar-mill pestles) having been slack; to the Rehar forest having been entirely closed for khair fellings; and to the felling of small khair trees for "musals" (rice-pounders) having been prohibited throughout the division.

96 (*b*)—In the following statement the timber and other produce removed from the forests by consumers or purchasers is summarized, and compared with the results for the previous year :—

Divisions.	Sál.	Sein.	Sisham.	Sandan.	Tún.	Khair.	Deodar.	Chir.	Haldú.	Jamun.	Miscellaneous.	Total.	Amount of revenue realized.	1881-82.		Difference.		Difference.	
	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	c. ft.	Rs	Total c. ft.	Revenue realized Rs.	More c. ft	Less c. ft.	More Rs.	Less Rs.
Naini Tal ...	...	...	...	...	...	...	...	14	...	...	777	791	80	5,479	266	...	4,688	...	186
Bánikhet ...	...	...	...	...	...	...	...	8,288	...	...	...	8,288	609	14,736	1,055	...	6,448	...	446
Kumaun ...	113,031	5,53[illegible]	6,087	685	1,387	8,759	...	...	79,381	2,295	...	217,161	79,231	301,238	1,01,973	...	84,077	...	22,742
Garhwál ...	123,651	6,552	1,011	9,582	480	4,652	...	...	...	...	30,349	176,277	81,143	147,364	55,778	28,913	...	15,365	...
Ganges ...	11,984	8,292	1,434	2,475	52	4,322	794	...	...	...	5,736	35,089	11,200	47,340	11,058	...	12,251	142	...
Jhánsi ...	...	...	...	...	...	...	...	...	...	...	96	96	10	264	29	...	168	...	19
Lalitpur ...	...	...	...	...	...	...	...	...	...	...	10,894	10,894	496	21,671	913	...	10,777	...	417
Bánda ...	...	...	...	...	...	...	...	...	...	...	Contract	...	88	...	...	...	...	88	...
Total ...	248,666	20,360	8,532	12,742	1,919	17,733	794	8,302	79,381	2,295	47,852	448,596	1,72,857	538,092	1,81,072	28,913	118,409	15,595	23,810

Add other produce, 1882-83.

Naini Tal...	Firewood ...	62,452	maunds.
	Ringals ...	171	loads.
	Bamboos ...	40	number
Ránikhet ...	Firewood ...	2,000	maunds.
	Charcoal ...	521	ditto.
Kumaun ...	Firewood ...	32,340	ditto.
	Bamboos ...	2,253,265	number.
Garhwál ...	Firewood ...	71,2470	maunds.
	Charcoal ...	20	ditto.
	Bamboos ...	7,003,768	number
Ganges ...	Firewood ...	97,021	maunds.
	Bamboos ...	9,555,068	number.
Jhánsi ...	Firewood ...	3,123	maunds
	Charcoal ...	1,516	ditto.
	Kurias ...	66,265	number.
Lalitpur ...	Firewood ...	9,680	maunds.
	Bamboos ...	302,647	number
	Kurias ...	234,350	Ditto.

Other produce, 1881-82.

Naini Tal...	Firewood ...	41,615	maunds.
	Ringals ...	201	loads.
Ránikhet ...	Firewood ...	4,600	maunds.
Kumaun ..	Firewood ...	46,328	ditto.
	Bamboos ..	2,749,351	number
Garhwál ...	Firewood ...	43,920	maunds.
	Bamboos ..	8,045,807	number.
Ganges ...	Firewood ...	22,454	maunds.
	Bamboos ...	10,913,768	number
Jhánsi .	Firewood ...	1 729	maunds.
	Charcoal ...	157	ditto.
	Bamboos ...	8	number.
	Kiras ...	128	ditto.
	Kurias ...	91,540	ditto.
Lalitpur ...	Firewood ...	7,840	maunds.
	Bamboos ...	354,238	number.
	Kurias ...	20,200	ditto.

Abstract of above.

			Revenue realized. Rs
Firewood ..	2,76,763	maunds.	9,721
Charcoal ..	2,057	ditto.	617
Ringals ..	171	loads.	21
Bamboos ...	19,194,788	number.	69,768
Kurias and other minor produce.	300,615	ditto	26,352
Grazing dues...	...	...	19,555
Total ...	...	...	1,26,034

Abstract of above.

			Revenue realized. Rs.
Firewood ...	1,68,486	maunds.	9,798
Charcoal ...	157	ditto.	51
Ringals ...	201	loads.	25
Bamboos ...	*22,062,672	number.	75,855
Kiras ...	128	ditto.	32,298
Kurias and other minor produce.	111,740	ditto.	
Grazing dues,	...	...	21,418
Total ...	...	...	1,39,446

* There was a mistake here last year. It has been detected and rectified.

Compared with 1881-82 there was a decrease during 1882-83 of 89,496 cubic feet of timber exported, and a decrease of Rs. 8,215 in revenue realized. A remark-

able fact was the falling off in the export of khair during 1882-83 as compared with the previous year, as will be seen from the following figures :—

Amount of khair timber exported and amounts realized during the years 1881-82 *and* 1882-83.

Divisions.	1881-82.		1882-83.			
	Amount exported.	Amount realized.	Amount exported.	Amount realized.	More.	Less.
	C. ft.	Rs.	C. ft.	Rs.	C. ft.	C. ft.
Kumaun	85,195	31,949	8,759	3,985	...	76,436
Garhwál	31,417	15,767	4,652	2,326	...	26,765
Ganges	2,770	277	4,322	2,313	1,552	...
Total ...	119,382	47,993	17,733	7,924	1,552	103,201

The khair timber is used for pestles for wooden sugar-mills (chúran) and for a smaller kind of pestle (músal) used for hand-pounding grain, but by far the larger amount is exported as chúrans. In 1881-82 there was an extraordinarily brisk demand for chúrans, and this, no doubt accounts for the less demand during 1882-83 to a certain extent. The exporters say that the introduction of the iron sugar-mills has certainly diminished the demand for chúrans, but they also prophesy that the iron mills will not remain in favor long, and that the wooden ones will soon come into fashion again. Probably the "wish is father to the thought" in this instance. Thirty-nine thousand cubic feet more sál was exported during 1882-83 than during the previous year, 38,000 of the increase occurring in the Garhwál division.

The Garhwál timber works, a description of which is given in the "introduction" to this report, may now be considered a perfect success.

They were commenced in 1880-81. 1,104 cubic feet were exported that year, and the revenue realized on it was Rs. 688.

In 1881-82 15,872 cubic feet were exported and Rs. 10,301 realized. In 1882-83 52,411 cubic feet were exported and the revenue was Rs. 38,664. In connection with what is said above about iron sugar-mills it is worthy of remark that, whereas 196 sál kolhús (wooden sugar-mills), the royalty on which amounted to Rs. 4,089, were prepared by the merchants during 1881-82, only 4 kolhús, the royalty on which was Rs. 124, were prepared during 1882-83. In 1881-82 the average outturn for each sál tree was a little over 25 cubic feet. In 1881-82 the trees were better and the average outturn was a little over 29 cubic feet.

The rates were raised about half an anna per cubic foot in 1882-83.

In 1881-82 the outturn averaged about 10½ annas per cubic foot. In 1882-83 it averaged about 11¾ annas per cubic foot. The average royalty varies according to the kind of timber exported ; for instance, logs pay more than large beams, large beams pay more than small beams, &c., &c.

Under "other produce" there is a decrease of about Rs. 13,000 in 1882-83 as compared with 1881-82. About Rs. 6,000 of this is in minor produce and about the same amount under bamboos. The number of bamboos exported in 1881-82 was 22,062,672 and in 1882-83 19,124,788.

3.—Free Grants of Forest Produce.

97 (i).—The following statement shows the trees, timber and bamboos given free to village right-holders, to His Highness the Nawáb of Rámpur, and to the Executive Engineer, Kumaun Provincial Works, for repairs of road bridges, compared with the free grants of the previous year.

Divisions.	Sál.		Sisham.		Khair.		Tún.		Deodar.		Chír (mature.)		Chír (poles.)		Sandan.		Sein.		Oak.		Miscellaneous (mature.)		Miscellaneous (poles.)		Bamboos.	Total.		Total of 1881-82.		Difference.	
	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	More.	Less.
Naini Tal ...	1	20	...	...	...	...	...	...	...	...	(b) 88	4,835	214	1,984	...	...	...	...	(c) 53	1,870	4	16	(d) 71	109	...	431	8,125	4,519	13,864	...	5,739
Bánikhet ...	...	...	...	...	...	...	...	...	...	...	839	50,349	6,856	41,136	...	...	...	...	512	2,048	108	432	...	...	...	8,315	93,954	5,870	55,386	38,570	...
Kumaun ...	(a) 838	15,564	4,607	30,370	14	154	...	...	...	...	...	...	...	...	...	...	34	743	...	...	1,223	3,785	...	...	33,680	(e) 6,766	50,616	(f) 15,237	62,588	...	11,972
Garhwál ...	5	129	1	16	...	77	...	...	...	...	...	...	...	...	4	38	...	...	...	...	1	44	...	...	...	11	304	7	190	114	...
Ganges ...	...	...	...	...	8	80	8	240	107	3,745	...	...	...	...	10	150	...	...	...	...	1	15	...	...	...	134	4,230	818	18,726	...	14,496
Jhánsi ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80	160	...	80	160	(g) 180	360	...	200
Total ...	894	15,713	4,608	30,386	22	311	8	240	107	3,745	927	55,175	7,070	42,420	14	188	34	743	565	3,918	1,337	4,292	151	269	33,680	16,757 and 33,680 bamboos	157,391	26,129	151,114	38,684	32,407

(a) includes 200 trees given to His Highness the Nawab of Rámpur.

(b) includes 52 trees given to the Executive Engineer, Kumaun Provincial Works.

(c) " 44 " " " " " " "

(d) " 20 poles " " " " " " "

(e) In the Kumaun division, the following were also given free to villagers;—

Firewood 54,018 maunds.

Charcoal 120 maunds.

Thatching grass 414 carts.

Limestone 72 carts.

(f) and 13,640 bamboos.

(g) also 170 maunds firewoods.
28 kiras and 5,308 kurias.

In the Bánda division, poles, &c., were given to persons claiming malikana rights, but the Collector has not furnished the particulars.

In the Lalitpur division there were also free grants of forest produce given to villagers, but the Deputy Commissioner has furnished no particulars.

4.—SUMMARY OF PRODUCE REMOVED FROM THE FORESTS.

98. (b).—The following statement shows the total number of trees cut during the year *vide* [(a) (g) and (i) foregoing] compared with the total number cut in the previous year :—

Divisions.	Sal.		Sein.		Sisham.		Deodar.		Chir poles.		Chir mature.		Alder.		Teak.		Oak.		Ash.		Rhododendron.		Sandan.		Jaman		Haldú.		Mowa.		Miscellaneous, mature.		Miscellaneous, poles.		Total.		Total, 1881-82.		Difference.	
	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c.ft.	No.	c.ft.	No.	c. ft.	No.	c.ft.	No.	c. ft.	No.	c.ft.	No.	c. ft.	No.	c.ft.	No.	c.ft.	No.	c.ft.	No.	c.ft.	No.	c.ft.	No.	c.ft.	More c.ft.	Less c.ft.
Naini Tal,	1	20	...	...	...	...	...	...	214	1,234	1,354	86,505	2	83	...	...	143	16,410	3	45	435	13,620	...	...	...	...	...	...	...	...	773	2,895	71	100	2,996	121,672	11,806	119,580	2,092	...
Bárikhet,	...	...	...	...	...	...	...	...	11,596	63,290	1,214	61,163	...	...	...	...	675	12,043	...	...	...	...	...	...	...	...	...	...	...	...	579	8,536	...	...	14,266	105,141	7,707	136,900	28,241	...
Kumaun,	5,261	98,727	602	10,479	4,607	30,570	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26	334	25	496	...	...	3,483	44,029	...	...	14,103	182,425	22,517	234,627	...	42,202
Garhwál,	1,725	33,546	144	4,324	1	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	38	...	...	...	...	...	...	1	121	2,925	4,653	4,700	61,697	23,269	109,223	...	47,526
Ganges,	95	1,695	543	19,684	...	...	107	3,745	2	32	...	...	...	...	...	...	...	...	...	...	...	...	10	150	103	2,756	...	...	...	...	4,131	49,116	6,252	19,375	13,246	96,555	17,412	194,907	...	109,352
Jhánsi,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55	388	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	560	930	615	1,365	543	938	327	...
Lalitpur,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	230	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,796	16,225	10,816	16,445	10,635	22,549	...	6,104
Bánda,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	175	...	...	...	...	7	175	...	...	175	...
Total ...	8,182	150,988	1,289	38,487	4,608	30,396	107	3,745	11,814	64,708	2,569	169,687	2	93	75	606	1,018	28,453	3	45	435	13,620	16	188	129	3,063	25	496	7	175	10,969	95,387	20,604	41,232	60,749	635,375	94,189	808,714	30,945	204,184

95. (K).—The timber and other produce removed from the Forests during the year is summarized in the following statement and compared with the results for the previous year :—

Timber.

1	2	3	4	5	6	7	8	9	10		11		12
Divisions.	Sold from depôt.	Sold locally.	Removed from forests by purchasers.	Free grants.	Total.	Value of 2, 3 and 4 columns.	Total for 1881-82.	Value for 1881-82	*Difference.* More.	*Difference.* Less.	*Difference.* More.	*Difference.* Less.	Remarks.
	Cubic feet.	Cubic feet.	Cubic feet.	Cubic feet.	Cubic feet.	Rs.	Cubic feet.	Rs.	Cubic feet.	Cubic feet.	Rs.	Rs.	
Naini Tal	20,880	417	791	8,125	30,213	14,208	35,731	10,770	...	5,518	3,438	...	
Ránikhet	...	...	8,268	23,956	10,244	622	70,122	1,067	32,122	...	...	445	
Kumaun	26,678	289	217,161	59,616	294,744	1,00,537	3,98,470	152,152	...	103,726	...	51,615	
Garhwál	21,701	153	176,277	304	198,435	92,553	1,78,496	82,403	19,939	...	10,150	...	
Ganges	10,484	20,040	35,069	4,130	69,843	26,503	1,17,525	41,040	...	47,682	...	14,537	
Jhánsi	199	...	96	160	455	42	2,379	78	...	1,924	...	36	
Lalitpur	2,732	3,306	10,894	...	16,932	2,088	23,455	1,962	...	6,523	106	...	
Bánda	2,835	6,014	Contract.	...	8,849	941	42,093	1,782	...	33,244	...	841	
Total ...	85,509	30,219	448,596	157,391	721,715	2,37,494	868,271	291,274	52,061	198,617	13,694	67,474	

Firewood and Charcoal.

	Mds.	Mds.	Mds.	Mds.	Mds.	Rs.	Mds.	Rs.	Mds.	Mds.	Rs.	Rs.	
Naini Tal	5,586	33,357	62,452	...	1,01,395	19,957	82,371	21,228	19,024	...	...	1,271	
Ránikhet	53,838	...	2,000	...	55,838	19,884	1,20,255	42,512	...	64,417	...	22,628	
Kumaun	...	...	32,340	54,138	86,478	4,042	58,338	5,791	28,140	...	...	1,749	
Garhwál	...	...	71,247	...	71,247	1,266	44,000	913	27,247	...	353	...	
Ganges	...	450	97,921	...	98,371	1,854	22,454	779	75,917	...	1,075	...	
Jhánsi	2,643	...	1,123	...	3,766	1,295	4,247	844	...	481	451	...	
Lalitpur	...	...	9,650	...	9,650	121	7,930	108	1,750	...	13	...	
Bánda	...	...	By contract quantity not given.	...	...	369	Contract quantity not known.	75	...	...	294	...	
Total ...	62,067	33,807	2,76,763	54,138	4,26,775	48,788	3,39,595	72,250	1,52,078	64,898	2,186	25,648	

comparison with 1881-82.

less for 1882-83 than that for 1881-82, but it must be remembered

Bamboos.

Naini Tal ...	...	...	...	40	...	40	22	...	25	...	...	...	...
Ránikhet ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kumaun ...	...	...	42	2,233,265	33,680	2,266,987	9,480	2,763,131	11,291	...	...	...	...
Garhwál ...	...	...	...	7,003,768	...	7,003,768	23,859	8,045,307	27,034	...	...	...	...
Ganges ...	...	...	120	9,585,068	...	9,585,188	35,572	10,914,068	36,643	...	...	...	...
Jhánsi ...	...	7,339	...	...	...	7,339	73	6,877	65	...	...	...	...
Lalitpur ...	...	353,699	781,231	302,647	...	1,437,477	5,591	1,520,975	5,353	...	...	...	...
Bánda ...	...	12,125	19,920	Contract.	...	32,145	247	44,767	277	...	...	...	...
Total	...	373,163	801,313	19,124,788	33,680	20,332,944	74,754	23,295,125	80,688	...	2,962,181 Less bamboos sold in 1882-83.	...	5,934 Less revenue realized on bamboos in 1882-83.

Summarising statements (J.) and (K.) the following is the total yield of produce for the year, compared with the results of the preceding year.

		1882-83.		1881-82.		*Differences.*		*Difference.*	
			Value.		Value.	More.	Less.	More.	Less.
			Rs.		Rs.	Rs.	Rs.	Rs.	Rs.
Trees ...	Cubic feet.	529,437	(a)	654,629	(b)	...	125,192	...	...
Poles and saplings ...	Number.	*32,318		59,240†		...	16,922	...	...
Timber ...	Cubic feet.	721,715	237,495	868,571	291,274	...	146,556	...	53,779
Firewood and charcoal ...	Maunds.	426,775	48,789	339,595	72,250	87,180	...	...	23,461
Bamboos ...	Scores.	1,016,647	74,754	1,164,756	80,688	...	148,109	...	5,934
Minor produce...	...	...	26,587	...	33,589	...	...	...	7,002
Grazing dues ...	...	...	19,555	...	21,376	...	...	...	1,821
	Total revenue under I., II. and III., see summary of revenue of the year. *105,938 c. feet.		4,07,180	Total revenue under I., II. and III., see summary of revenue for the year, †154,085 c. ft.	4,99,177	...	...	...	91,997

This summary shows the following facts:—
Less timber to the amount of 146,556 cubic feet was disposed of in 1882-83 in
More firewood and charcoal to the amount of 87,180 maunds.
Less bamboos to the number of 148,109 scores.
Less minor produce to the value of Rs. 7,002.
Less grazing dues to the value of Rs. 1,821.
It also shows that the total revenue under heads I., II. and III. is Rs. 91,997 less than 1881-82 was an *exceptionally* good year for

(a)—The value of so much of these trees and poles as were sold during the year is shown under the next item "Timber."
(b)—The value of so much of these trees and poles as were sold during the year is shown under the item "Timber."

100. *(L).—The value of the timber and other produce on hand at the commencement and close of the year, and also of the live and dead-stock, is shown in the following statement :—*

Description.	On hand at commencement of year.		On hand at close of year.		Increase or decrease in value.		Remarks.
	Various.	Value.	Various.	Value.	More.	Less.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Timber	c f. 1,00,471	93,453	1,15,135	1,20,869	27,416	...	
Firewood and charcoal,	m. 11,770	8,142	19,717	12,158	4,016	...	
Bamboos	s. 1,547	224	327	60	...	164	Form No 65 affords the particulars.
Minor produce ...	...	416	...	645	229	...	
Elephants	9	14,592	7	11,200	...	3,300	
Bullocks	32	523	41	794	271	...	
Dead-stock, including buildings, furniture, tools and plant.	...	78,954	...	86,408	7,454	...	
Total ...	Various.	1,96,212	Various.	2,32,134	39,386	3,464	Net increase in value at the close of the year—Rs. 35,922.

101. The statements showing the yield and working have been prepared with great care, and will, it is hoped, be considered satisfactory and explicit.

No attempt has been made to distribute the fellings under "Selection," "Thinnings" and "Clearances," because it seems hopeless to attempt such a distribution with any approach to accuracy, and there does not appear to be any object in doing it until some definite instructions are given as to what kinds of fellings come under the different terms.

In this circle we have no "Clearances" unless the petty fellings on fire-lines should be so termed. All our fellings are, practically, "Selection," for every tree is selected before it is felled.

CHAPTER V.

FINANCIAL RESULTS.

102. The following statement shows the results of 1882-83 compared with the results of the two previous years :—

	1880-81.	1881-82.	1882-83.
	Rs	Rs.	Rs.
Receipts	4,57,606	5,04,037	4,14,003
Expenditure	2,62,437	3,04,893	2,86,648
Surplus	1,95,169	1,99,144	1,27,355
Percentage of expenditure to receipts ...	57·35	60·49	69·21

103. The following statements show the receipts and expenditure under the three main heads during the last three years :—

1880-81.

Headings.	Receipts.		Charges.	
	Amount	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forest by Government agency.	1,97,064	I.	1,30,667	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 9,510.
II.—Other revenue ...	2,60,542	II.,III.,IV.&V.	63,339	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 9,507.
III.—Formation, protection and improvement of forests ...	...	...	68,431	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+B$ + Direction, Rs. 9,502.
Total ...	4,57,606	..	2,62,437	

1881-82.

Headings.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads
	Rs		Rs.	
I.—Timber and other produce removed from the forest by Government agency.	1,77,828	I.	1,49,834	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs 7,410.
II.—Other revenue ...	3,26,209	II.,III.,IV.&V.	64,647	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 7,410.
III.—Formation, protection and improvement of forests.	...	...	90,412	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 7,413.
Total ...	5,04,037	...	3,04,893	

1882-83.

Headings.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forests by Government agency.	1,07,654	I.	1,33,355	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ and Direction, Rs. 8,305.
II.—Other revenue ...	3,06,349	II.,III.,IV.&V.	70,916	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ and Direction, Rs. 8,104.
III.—Formation, protection and improvement of forests.	...	...	82,377	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+\frac{B}{3}$ and Direction, Rs. 7,806.
Total ...	4,14,003	...	2,86,648	

104. The following statement shows the average of the three years :—

	1880-81.		1881-82.		1882-83.		Average of 3 years.			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	1,97,064	1,30,667	1,77,828	1,49,834	1,07,654	1,33,355	1,60,849	1,37,952	22,897	...
II.—Other revenue ...	2,60,542	63,139	3,26,209	64,647	3,06,349	70,916	2,97,700	66,301	2,31,399	...
III.—Formation, protection and improvement of forests.	...	68,431	...	90,412	...	82,377	...	80,407	...	80,407
Total ...	4,57,606	2,62,437	5,04,037	3,04,893	4,14,003	2,86,648	4,58,549	2,84,660	2,54,296	80,407

Showing an average annual surplus for the last three years of Rs. 22,897 on departmental timber operations, a surplus of Rs. 2,31,399 on other revenue, and an average expenditure of Rs. 80,407 on the formation, protection and improvement of the forests.

105. The receipts were derived from the following sources :—

Year.	Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers or purchasers.	Confiscated drift and wait wood.	Revenue from forests not managed by Government.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
1881-82	1,77,828	3,19,203	2,145	103	4,758	5,04,037
1882-83	1,07,655	2,98,894	634	109	6,713	4,14,003

106. The expenditure under the main heads of (A) Conservancy and Works, and (B) Establishments, is shown in the following tables :—

A.

Year.	I. Timber and other produce removed from forests by Government agency.	II. Timber and other produce removed from forests by consumers or purchasers.	III. Confiscated drift and wait wood.	IV. Revenue from forests not managed by Government agency	V. Rent of leased forests and payments to shareholders.	VI. Live-stock, stores, tools and plant.	VII. Communication and buildings	VIII. Demarcation, improvement, and extension of forests.	IX. Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1881-82 ...	91,978	17,296	202	...	4,997	11,566	30,230	37,549	2,994	1,96,812
1882-83 ...	72,559	18,810	68	...	4,325	8,601	46,795	26,404	1,523	1,79,085

B.

Year.	I. Salaries.	II. Travelling allowance.	III. Contingencies.	Total.
	Rs.	Rs.	Rs.	Rs.
1881-82	93,343	9,717	5,021	1,08,081
1882-83	94,107	9,068	4,388	1,07,563

107. The following statement shows the receipts and expenditure in each division compared with the figures of the previous year :—

Divisions.	Receipts.		Difference.		Expenditure.		Difference.	
	1881-82.	1882-83.	More.	Less.	1881-82.	1882-83.	More	Less.
Direction... ...	*Nil.*	*Nil.*	...	...	22,233	24,215	1,982	...
Naini Tal ...	33,283	35,235	1,952	...	36,164	32,739	...	5,425
Ranikhet... ...	45,766	21,786	...	23,980	38,340	26,979	.	11,361
Kumaun	194,439	159,220	...	35,219	87,294	89,539	2,245	...
Garhwál	1,19,484	1,25,908	6,424	...	56,468	54,369	...	2,099
Ganges	82,668	67,876	...	14,792	39,726	46,731	7,005	...
Jhánsi	4,860	4,857	...	6	2,966	3,707	741	...
Lalitpur	11,006	12,341	1,335	...	4,728	4,773	45	...
Bánda	12,531	6,780	...	5,751	14,974	3,596	...	11,378
Total ...	5,04,037	4,1 ,003	9,711	99,745	3,04,893	2,86,648	12,018	30,263

108. The value of timber and fuel, &c., and live and dead-stock at the commencement of the year was ... ... Rs. 1,96,212
And at close of the year ... ... „ 2,32,134

Balance in favor of the year ... ... „ 35,922

109. The outstandings due *to* the department at the close of the year amounted to ... ... „ 9,387
The outstandings due *by* the department at the close of the year amounted to ... ... „ *Nil*

and there was a sum of Rs. 272-4-6 due to the department on account of outstandings of revenue in the Bánda division—Grazing dues and rent of land—of which, however, Rs. 259-7-3 were written off as irrecoverable under Local Government Order No. 698, dated 9th October, 1882.

110. The receipts of the year were Rs. 90,034 less than the receipts of 1881-82, the expenditure Rs. 18,245 less than the expenditure of 1881-82, and the surplus Rs. 71,789 less than the surplus of 1881-82. But the value of stock at the close of the year exceeds the value of stock at the commencement of the year by Rs. 35,922, of which Rs. 31,497 are on account of timber and other produce at sale depôts. The difference in value of the timber alone is Rs. 27,416 in favor of the year.

111. Compared with 1881-82 there is a decrease of Rs. 70,173 under I., a decrease of Rs. 20,311 under II., a decrease of Rs. 1,511 under III., and an increase of Rs. 1,961 under IV. and V.

The decrease under I. is made up as follows:—

	Rs.
Ranikhet division	22,563
Kumaun „	28,351
Garhwál „	4,499
Ganges „	14,205

The Ranikhet division decrease was solely owing to less fuel having been taken by the Commissariat Department, the station having been without troops the whole winter. Against the decrease of revenue there is a decrease of Rs. 11,361 in expenditure, only Rs. 1,000 of which was due to the division having been without an officer for a portion of the year.

Kumaun division.—The decrease is entirely due to less timber having been sold from dépôts.

The value of timber in depôt varies every year according to the demand, and as there can be no fixed rates, the Divisional Officer is expected to use his discretion in

deciding whether to accept an offer or to refuse it. At the commencement of the working season a fair offer was made by a merchant to purchase a large quantity of the timber in depôt, but as the price he offered was a little less than what had been realized during the previous year, when the demand was brisk, the Divisional Officer unfortunately refused it, and the consequence was that he did not get such a good offer again throughout the remainder of the year. This unfortunate accident has quite upset the results of the division.

Garhwál division.—The decrease is due to the stoppage of timber works by departmental agency in favour of working out the timber by private enterprise. The decrease is more than counterbalanced by an increase of Rs. 15,365 under head II.

Ganges division.—Rs. 4,000 of the decrease is accounted for by that amount less than in 1881-82 having been taken from merchants in advance for timber. About Rs. 2,500 more of the decrease is accounted for by the price of the boxwood, which fetched £211-11-6 in England, not being shown as revenue in the division, the money having been paid into the India Office.

The remaining decrease was due to the timber which was prepared during the year not having been sold in time to appear in the accounts of the year.

112. The decrease of Rs. 20,000 under head II. occurs in the Kumaun division, and is owing to the extraordinary falling off in the demand for khair "churans" as compared with the very large demand for that article in 1881-82.

113. The decrease of Rs. 1,511 under head III. is made up of small decreases in the Kumaun, Garhwál and Ganges divisions.

114. The following statements show the receipts and expenditure of the several Divisions under the three main heads for 1882-83. They are followed by statements showing the average of the three years for each division :—

(a) *Naini Tal.*

Headings.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs		Rs.	
I.—Timber and other produce removed from forests by Government agency.	32,437	I.	24,316	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 700.
II.—Other revenue ...	2,798	II. III. IV. & V.	4,081	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 600.
III.—Formation, protection and improvement of forests.	...	...	6,342	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs 700.
Total ...	35,235	...	34,739	

Showing average of last three years.

	1880-81.		1881-82.		1882-83.		Average of three years.			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations	33,162	33,777	31,019	30,602	32,437	24,316	32,206	29,565	2,641	...
II.—Other revenue ...	2,620	5,108	2,264	3,954	2,798	4,081	2,626	4,381	...	1,761
III.—Formation, protection and improvement of forests	...	6,797	...	5,108	...	6,342	...	6,882	...	6,082
Total ...	35,782	45,682	33,283	39,664	35,235	34,739	34,826	40,028	2,641	7,843

There is an average surplus of Rs. 2,641 on I., but the working of the division as a whole shows an average deficit of Rs. 5,202 on the last three years.

(b) Ránikhet.

Heading.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I. Timber and other produce removed from forests by Government agency.	19,651	I.	18,758	$A.(I + V + \frac{VI}{2} + \frac{VII}{3} + \frac{IX}{3}) + \frac{B}{3}$ + Direction, Rs 700.
II. Other revenue ...	2,135	II III —IV and V.	3,362	$A (II + III + IV + \frac{VII}{3} + \frac{IX}{3}) + \frac{B}{3}$ + Direction, Rs. 600.
III. Formation, protection and improvement of forests.	...	...	6,859	$A (\frac{VI}{2} + \frac{VII}{3} + \frac{VIII}{3} + \frac{IX}{3}) + \frac{B}{3}$ + Direction, Rs. 700.
Total ...	21,786	...	28,979	

Showing average of last three years.

	1880-81.		1881-82.		1882-83.		Average of three years.			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	31,020	21,357	42,214	27,358	19,651	18,758	30,962	22,491	8,471	...
II.—Other revenue ...	5,584	4,898	3,552	4,498	2,135	3,362	3,757	4,252	...	495
III.—Formation, protection, and improvement of forests.	...	7,685	...	8,084	...	6,859	...	7,543	...	7,543
Total ...	36,604	33,940	45,766	39,940	21,786	28,979	34,719	34,286	8,471	8,038

Showing an average surplus of Rs. 8,471 on I., but an average surplus of only Rs. 433 on the working of the division as a whole.

(c) Kumaun.

Heading.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forests by Government agency.	91,260	I.	43,463	$A (I + y + \frac{VI}{2} + \frac{VII}{3} + \frac{IX}{3}) + \frac{B}{3}$ + Direction, Rs. 3,500.
II.—Other revenue ...	1,17,960	II., III., IV., and V.	28,116	$A (II + III + IV + VII + \frac{IX}{3}) + \frac{B}{3}$ + Direction, Rs. 3,500.
III.—Formation, protection, and improvement of forests.	...	...	27,960	$A (\frac{VI}{2} + \frac{VII}{3} VIII + \frac{IX}{3}) + \frac{B}{3}$ + Direction, Rs. 3,000.
Total ...	1,39,220	...	99,539	

Showing average of last three years.

	1880-81.		1881-82.		1882-83.		*Average of three years.*			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	75,299	34,161	49,812	38,617	21,260	43,468	48,790	38,747	10,043	...
II.—Other revenue ...	1,10,072	24,959	1,44,627	26,817	1,17,960	28,116	1,24,219	26,631	97,588	...
III.—Formation, protection, and improvement of forests.	...	25,339	...	31,293	...	27,960	...	28,197	...	28,197
Total ...	1,85,371	84,459	1,94,439	97,726	1,39,220	99,539	1,73,009	93,575	1,07,631	28,197

Showing an average surplus of Rs. 10,043 on I., and of Rs. 97,588 on II., and an average surplus of Rs. 79,434 on the working of the division as a whole. But as the receipts under I. appear to be decreasing at an alarming rate, departmental timber operations will be stopped in Eastern Kumaun and merchants will be allowed to work out the timber on the system which has been so successful in the Garhwál Division.

(*d*) *Garhwál.*

Headings.	*Receipts.*		*Charges.*	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forests by Government agency.	11,105	I.	17,121	$A\left(I+V+VI+\frac{VII}{2}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 2,000.
II.—Other revenue ...	1,14,803	II.,III.,IV & V.	19,426	$A\left(II+III+IV+\frac{VII}{2}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 2,000.
III.—Formation, protection, and improvement of forests.	...	...	23,822	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 2,000.
Total ...	1,25,908	...	60,369	

Showing average of last three years.

	1880-81.		1881-82.		1882-83.		*Average of three years.*			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	39,704	19,976	15,604	24,030	11,105	17,121	22,138	20,376	1,762	...
II.—Other revenue ...	86,958	17,693	1,03,880	17,006	1,14,803	19,426	1,01,880	18,042	83,838	...
III.—Formation, protection and improvement of forests.	...	19,464	...	21,632	...	23,822	...	21,639	...	21,639
Total ...	1,26,662	57,133	1,19,484	62,668	1,25,908	60,369	1,24,018	60,057	85,600	21,639

Showing an average annual surplus of Rs. 1,762 under I., Rs. 83,838 under II., and Rs. 63,961 on the working of the whole division. The decrease of receipts under I. owing to the timber being worked out by private enterprise, and it will be

observed that the increase of receipts under II. is in about the same ratio as the decrease under I.

(e) Ganges.

Heading.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the Forests by Government agency.	15,020	I.	23,169	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}+\frac{B}{3}\right)$ + Direction, Rs. 1,000.
II.—Other revenue ...	52,856	II., III., IV. & V.	13,605	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs 1,000.
III.—Formation, protection, and improvement of forests.	...	...	12,957	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 1,000.
Total ...	67,876		49,731	

Showing average of the last three years.

	1880-81.		1881-82.		1882-83.		Average of three years.			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	14,572	18,378	29,225	22,833	15,020	23,169	19,606	21,293	...	1,687
II.—Other revenue ...	46,784	8,624	53,443	10,478	52,856	13,605	51,028	10,902	40,126	...
III.—Formation, protection, and improvement of forests.	...	6,449	...	9,615	...	12,957	...	9,674	...	9,674
Total ...	61,356	33,451	82,668	42,426	67,876	49,731	70,634	41,869	40,126	11,361

Showing an average deficit of Rs. 1,687 on I., an average surplus of Rs. 40,126 on II., and an average surplus of Rs. 28,765 on the working of the division as a whole. The timber worked out under I. is of inferior kinds, none of it is sál.

(f) Jhánsi.

Headings.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forests by Government agency.	954	I.	1,715	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 72.
II.—Other revenue ...	3,903	II., III., IV. and V.	683	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 72.
III.—Formation, protection, and improvement of forests.	...	...	1,524	$A\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 72.
Total ..	4,857	...	3,922	

Showing average of last three years :—

	1880-81.		1881-82.		1882-83.		*Average of three years.*			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations	1,298	1,358	987	1,294	954	1,715	1,079	1,450	...	377
II.—Other revenue ...	2 457	513	3,873	525	3,903	683	3,411	574	2,837	...
III.—Formation, protection, and improvement of forests.	...	1,424	...	1,297	...	1,524	...	1,415	...	1,415
Total ...	3,755	3,295	4,860	3,116	4,857	3,922	4,490	3,445	2,837	1,792

Showing an average deficit of Rs. 377 on I., an average surplus of Rs. 2,837 on II., and an average surplus of Rs. 1,045 on the working of the division as a whole.

(g)—Lalitpur.

Headings.	*Receipts.*		*Charges.*	
	Amount	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forests by Government agency.	5,718	I	2,662	$A\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 200.
II.—Other revenue ...	6,623	II., III IV. & V.	957	$A\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 200.
III.—Formation, protection and improvement of forests.	...	...	1,754	$A\left(\frac{VI}{2}+\frac{VII}{3}\times VIII\times\frac{IX}{3}\right)+\frac{B}{3}$ + Direction, Rs. 200.
Total ...	12,341	...	5,373	

Showing average of last three years.

	1880-81.		1881-82.		1882-83.		*Average of three years.*			
	Receipts.	Charges.	Receipts	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations.	2,009	1,660	5,494	2,716	5,718	2,662	4,407	2,346	2,061	...
II —Other revenue	6,067	1,544	5,512	895	6,623	957	6,067	1 132	4,935	...
III —Formation, protection and improvement of forests.	...	1,273	...	1,517	...	1,754	...	1,514	...	1,514
Total ...	8,076	4,477	11,006	5,128	12,341	5,373	10,474	4,992	6,996	1,514

Showing an average surplus of Rs. 2,061 on I., an average surplus of Rs. 4,935 on II., and an average surplus of Rs. 5,482 on the working of the division as a whole.

(h)—*Bánda.*

Headings.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Timber and other produce removed from the forests by Government agency.	1,509	I.	2,151	A $\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right)$ $+\frac{B}{3}$ + Direction, Rs. 133.
II.—Other revenue ...	5,271	II. III. IV. and V.	687	A $\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3}\right)$ $+\frac{B}{3}$ + Direction, Rs. 133.
III.—Formation, protection and improvement of forests.	...	...	1,158	A $\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right)$ $+\frac{B}{3}$ + Direction, Rs. 134.
Total ...	6,780	...	3,996	

Showing average of last two years.

	1880-81.		1881-82.		1882-83.		Showing average of two years.			
	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Receipts.	Charges.	Surplus.	Deficit.
			Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.
I.—Departmental timber operations.	...	...	3,473	2,884	1,509	2,151	2,491	2,517	...	26
II—Other revenue ...	...	...	9,058	474	5,271	687	7,165	580	6,585	...
III.—Formation, protection and improvement of forests	...	...	...	11,866	...	1,158	...	6,512	...	6,512
Total ...	...	...	12,531	15,224	6,780	3,996	9,656	9,609	6,585	6,538

Showing an average deficit of Rs. 26 on I., an average surplus of Rs. 6,585 on II., and an average surplus of Rs. 47 for the working of the division as a whole. But as the bulk of the charges is for purchase of land, this statement is no real criterion of the financial state of the division.

115. In the following table the "main facts" of each division are shown, followed by such comments and explanations as the figures contrasted with those of the previous year call for:—

Divisions.	Year.	Area in acres	Yield of timber, cubic feet.	Kind of timber.	Yield of timber per acre in cubic feet.	Total receipts.	Receipts per acre.	Total expenditure	Expenditure per acre.	Total surplus or deficit.	Ratio of expenditure to receipts.	Surplus per acre.
						Rs.		Rs.		Rs.		
Naini Tal ...	1881-82 ...	22,937	119,580	Chir, oak, &c. ...	5·2	33,283	1·4	38,164	1·7	— 4,881	115	Nil.
	1882-83 ...	22,937	121,672	Ditto ...	5·3	35,235	1·5	32,739	1·4	+ 2,496	93	·1
Ráníkhet ...	*1881-82 ...	42,654	136,684	Ditto ...	3·2	45,766	1·1	38,340	·9	+ 7,426	83	·2
	1882-83 ...	42,654	165,141	Ditto ...	3·9	21,786	·5	26,979	·6	— 5,193	123	Nil.
Kumaun ...	1881-82 ...	406,930	430,934	Sál, sein, &c. ...	1·1	1,94,439	·5	87,294	·2	+ 1,07,145	45	·3
	1882-83 ...	406,930	325,353	Ditto ...	·8	1,39,220	·3	89,539	·2	+ 49,681	64	·1
Garhwál ...	1881-82 ...	302,536	174,944	Ditto ...	·6	1,19,484	·4	56,468	·2	+ 63,016	47	·2
	1882-83 ...	284,039	176,581	Ditto ...	·6	1,25,908	·4	54,369	·2	+ 71,539	43	·2
Ganges ...	1881-82 ...	111,442	213,534	Deodar, sál, sein and many inferior kinds.	1·9	82,668	·7	39,726	·3	+ 42,942	52	·4
	1882-83 ...	130,559	112,800	Ditto ...	·9	67,876	·5	46,731	·3	+ 21,145	68	·2
Jhánsi ...	1881-82 ...	23,613	2,323	Teak, kardhai, &c....	·1	4,860	·2	2,966	·1	+ 1,894	61	·1
	1882-83 ...	23,613	1,361	Ditto ...	...	4,857	·2	3,707	·1	+ 1,150	71	·1
Lalitpur ...	1881-82 ...	95,573	24,393	Teak, sej, &c. ...	·2	11,006	·1	4,728	·05	+ 6,278	43	·05
	1882-83 ...	95,573	27,339	Ditto ...	·3	12,341	·1	4,773	·05	+ 7,568	38	·05
Bánda ...	1881-82 ...	75,459	...	Mahúa, &c. ...	...	6,744†	·1	12,616†	·2	— 5,872	187	Nil.
	1882-83 ...	75,459	8,849	Ditto ...	·1	6,780	·1	3,596	·05	+ 3,184	53	·05
Direction ...	1881-82 ...	...	...	...	...	...	...	22,233	...	...	...	...
	1882-83 ...	...	...	...	...	...	...	24,215	...	...	...	...
Total ...	1881-82 ...	10,81,144	1,102,322	...	1	4,98,250	·4	3,02,535	·3	+ 1,95,715	60	·1
	1882-83 ...	*10,81,764	9,39,096	...	·9	4,14,003	·3	2,86,648	·3	+ 1,27,355	69	Nil.

Six hundred and twenty acres more than last year's area owing to acquisition of mauza Aujani. † These are the results of 1881-82 only—see para. 137 of the last year's annual report for this circle.

116. The above table is prepared in the form given in para. 23 of the North-Western Provinces and Oudh Government resolution No. 109, dated 2nd February, 1883, and the figures for 1881-82 have been corrected in a few places.

A.—Nainí Tal division.—This division shows better results. Two thousand cubic feet more timber cut, Rs. 2,000 more revenue, and Rs. 6,400 less expenditure.

B.—Ranikhet division.—Twenty-eight thousand cubic feet more timber cut, Rs. 24,000 less revenue, and Rs. 11,400 less expenditure.

The increase in yield is due to 94,000 cubic of timber having been given free to right-holders during 1882-83, whereas only 55,400 cubic feet were supplied during 1881-82. The decrease in revenue is due to the station having been left without troops during the winter, and therefore the Commissariat Department required much less fire-wood, which is the chief source of revenue in this division.

C.—Kumaun division.—One hundred and five thousand six hundred cubic feet less timber cut, Rs. 55,200 less revenue and Rs. 2,200 more expenditure. The decrease in yield of timber is due to so vesy little "khair" having been exported in comparison with the exports of 1881-82, and to nearly 30,000 cubic feet having been given free to the Commissioner during 1881-82, for the construction of a dam on the Kosi river. See para. 62 (c) of last year's report.

The decrease in revenue is Rs. 28,500 on depôt sales of timber, and Rs. 26,700 under heads II., III. and V. The revenue from khair timber (head II.) was only Rs. 3,300 in 1882-83 against Rs. 31,900 in 1881-82.

The expenditure on departmental timber works was Rs. 3,823 more than during 1881-82, but against this there was Rs. 42,391 worth of timber more in stock at the close of the year than at the commencement.

D.—Garhwál division.—This division shows very good results. There was an increase in yield of 1,600 cubic feet of timber, an increase in receipts of Rs. 6,400 and a decrease in expenditure of Rs. 2,100.

In para. 27 of the North-Western Provinces and Oudh Government resolution on last year's annual report, it was noted that although the timber in this division was removed without cost to Government, "the expenses of the division nevertheless increased, and the economy is not apparent on the surface." The system of allowing the fellings to be undertaken by private enterprise instead of by departmental agency was commenced in 1880-81, on a very small scale, as an experiment.

In 1881-82 it was developed to a certain extent, but it was not till 1882-83 that the full complement (50,000 cubic feet) of sál timber, as allowed by the working-plan, was reported.

This explains why the surplus revenue was not affected by the new system either in 1880-81 or 1881-82.

But the effect is apparent in the results for 1882-83, for the surplus is Rs. 8.500 more than in 1881-82, notwithstanding the expenditure on formation, protection and improvement having been Rs. 2,190 more.

E.—Ganges division.—There was a decrease in yield of 100,000 cubic feet of timber, a decrease in revenue of Rs. 14,800, and an increase in expenditure of Rs. 7,000.

The decrease in yield is due to no deodar sleepers having been prepared and to considerably less timber having been given to village right-holders.

The decrease in revenue is under head I., less timber having been sold from depôt owing to the timber felled during the year not having been got to depôt before the close.

The increase in expenditure is due to a Deputy Conservator on pay of Rs. 800 having been in charge during the year, whereas in 1881-82 the Assistant Conservator in charge drew only Rs. 450, and also to the leave allowances of the Assistant Conservators for six months having been charged to the division.

F. Jhánsi division.—There was a decrease in yield of timber of 1,000 cubic feet. The receipts were the same as in 1881-82, and there was an increase in expenditure of Rs. 700.

G. Lalitpur division.—There was an increase in yield of timber of 3,000 cubic feet, an increase in receipts of Rs. 1,300, and an increase in expenditure of Rs. 45.

H Bánda division.—As no account of the yield during 1881-82 was given, no comparison can be made. There was an increase of Rs. 36 in receipts, and a decrease of Rs. 9,000 in expenditure. But the expenditure is not susceptible of comparison as the bulk of last year's expenditure was for the purchase of land.

117. The circle shows somewhat worse results than the previous year. There was a decrease in yield of timber of 163,200 cubic feet, a decrease in receipts of Rs. 84,200, a decrease in expenditure of Rs. 15,900 and a decrease in surplus of Rs. 68,300.* But the value of stock at the close of the year exceeds the value at the commencement of the year by Rs. 35,900, of which the difference in value of the timber alone is Rs. 27,400 in favor of the year.

* *N.B.*—These figures differ from those given in para. 110, because here the Bánda receipts and expenditure for 1881-82 *only* are given, whereas the figures in para. 110 include the Bánda receipts and expenditure for 1879-80, 1880-81 and 1881-82, as shown in the accounts for 1881-82. See para. 137 of last year's annual report for this circle.

	Rs.
From the decreased surplus	68,300
Deduct difference in value of stock	35,900
	32,400

This decrease of Rs. 32,400 is more than accounted for by the extraordinary falling off in the demand for "khair" timber, as shown below :—

KUMAUM DIVISION.

Receipts from khair, 1881-82	Rs.	31,948
" " " 1882-83	"	3,285
Decrease ...	Rs.	28,663

GARHWAL DIVISION.

Receipts from khair, 1881-82	Rs.	15,767
" " 1882-83	"	2,326
Decrease ...	Rs.	13,441

The receipts from khair are shown under head II., and as the revenue is collected by the Kham Tahsil establishment, there is no corresponding decrease in expenditure.

CHAPTER VI.

GENERAL REMARKS.

118. The financial results of 1881-82 were exceptionally good, the increase in receipts being chiefly due to an enormous demand for bamboos and khair "churans."

The results of 1882-83 compare unfavorably with those of 1881-82, and the reasons have been explained in Chapter V. I have no means of ascertaining whether the extraordinary falling off in the demand for khair "churans" is due to the introduction of iron sugar-mills or to the market having been swamped during the previous

year, but the exports of the current year will probably enlighten us to some extent. The bad results of the Ganges division are partly attributable to the divisional officer having fallen sick at the busiest time of the working season, when the timber works required careful and constant supervision.

119. As has already been explained in the body of the report, all departmental timber operations have ceased in the Garhwál division and the 50,000 cubic feet of green sál and as much sein, &c., as can be profitably disposed of (in accordance with the working plan) is all exported by private enterprise. The trees are marked by the divisional officer or by his subordinates under his supervision, and are portioned off to merchants, who are allowed to convert them as they please, a fixed royalty being levied on the timber when exported. The system may now be considered as thoroughly established in this division, for during the year under report over 52,000 cubic feet of sál was exported and a fair amount of sein, &c.

The merchants are delighted with the system, for they are the people who know the demands of the market and they come up into the forests fully prepared to convert the timber into the shapes and sizes which will find the readiest sale.

Double the amount of sál might have been disposed of during 1882-83 had we been able to give it, and I have no doubt that the export of sein and other inferior timber will increase annually under this system. In addition to the advantages offered to trade, it is, I believe, a more *profitable* system than working out the timber by departmental agency, when all the various expenses connected with the latter, such as establishments, depôts, interest on capital, risks of timber in stock, and deterioration in value if not sold during the year are taken into account.

I am entirely in favour of timber works being conducted by private enterprise in our Bhabar forests, and hope to extend the Garhwál system to Eastern Kumaun during 1883-84, and to the Ganges division also, if possible. A reference to the Kumaun and Ganges division statements, in Chapter V. of receipts and expenditure under the three main heads for the last three years, will show that timber operations conducted by departmental agency are not very profitable in those divisions, and that a change is desirable.

120. The subordination of forest officers to the chief district revenue officers worked perfectly smoothly during the year, and I did not hear of any disturbances or disagreements between forest officials and villagers.

Tigers behaved themselves reasonably, but wild elephants were a very great nuisance and certainly ought to be shot and harassed, for they have increased enormously in numbers, and have become so utterly fearless of man from having been so long unmolested, that they are now a perfect terror to our establishments and workmen, and they destroy thousands of rupees worth of timber and bamboos annually. I do trust that the Lieutenant-Governor will issue orders about them before next working season. If the Government Khedda Superintendent can catch as many as are required down in Bengal, why should these large herds be preserved to do such damage in our forests and be such a nuisance to us and to the adjacent villagers. One or two season's shooting would make most of them fly to the large jungles in Nepal, for they are animals of great instinct, and will soon leave a place where they are much molested.

121. Fire conservancy has been very successful during the year under report, notwithstanding the entire absence of rain from the middle of March to the end of May. I never saw the forests drier than they were in May.

122. There was a great strain during the working season owing to Mr. O. Greig having retired and to Mr. Brereton having fallen ill; but we shall be very well officered for the working season of 1883-84.

I have no fault to find with any of the superior staff. They all worked satisfactorily. Divisional Officers report favorably of their subordinates; but the want of an efficient subordinate establishment in the Kumaun, Garhwál and Ganges divisions, complained of in para. 148 of last year's report is a most serious drawback, the proposals for an increased establishment for these three divisions, which were submitted a year ago, not yet having been sanctioned by the Government of India.

Conservator's Office was under charge of Mr. Braidwood throughout the year, and it was kept in excellent order by Mr. Sheils, the Head Clerk, assisted by the subordinate clerks.

OFFICE OF CONSERVATOR OF FORESTS,
CENTRAL CIRCLE, N.-W. P. AND OUDH,
Naini Tal, the 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle,
N.-W. Provinces and Oudh.

ANNUAL STATEMENTS.

ANNUAL FORM No. 49.—(PRESCRIBED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Reserved Forests, 1882-83.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April, 1882.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March, 1883.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles		
Kumaun Division ...	Kumaun district,	Block No. I.	80,467	126	...	...	80,467	126	No additions or transfers during the year.	The areas are subject to correction on the completion of the survey by the Forest Survey Department.
		Ditto II	10,937	17	...	...	10,937	17		
		Ditto III	35,200	55	...	..	35,200	55		
		Ditto V.	65,606	103	...	...	65,606	103		
		Ditto VII.	8,960	14	...	...	8,960	14		
		Ditto VIII.	147,520	230	...	...	147,520	230		
		Ditto IX.	43,520	68	...	...	43 520	68		
		Ditto X.	4,320	7	...	...	4,320	7		
		Ditto XI.	4,640	7	...	..	4,640	7		
		Ditto XII.	5,440	8	...	...	5,440	8		
			320	1	...	...	320	1		
		Total ..	406,930	636	...	...	406,930	636		
Ránikhet ditto ...	Kumaun ditto ..	Block No XI, Ránikhet ...	4,480	7	..	...	4,480	7	Ditto ...	The area is subject to correction on the receipt of area statements from the Forest Survey Department.
Garhwál ditto ...	Garhwál ditto ...	Block No. I, Patli Dún ...	152,000	238	...	...	152,000	238	No. 400, dated 10th June, 1882.	The areas are subject to correction on the receipt of area statements from the Forest Survey Department.
		Ditto II, Kotri Dún ...	115,520	180	...	...	115,520	180		
		Ditto VI, Kartia ...	800	1	...	...	800	1		
	Bijnor ditto ...	Chandi	18,497	29	...	18,497	...	...		
		Behar	15,719	25	...	...	15,719	25		
		Total ...	302,536	473	..	18,497	284,039	444		
Ganges ditto ...	Native Garhwál ...	Bhagirathi Forest ...	A portion of the forests leased from His Highness the Raja of Tehri.						No. 400, dated 10th June, 1882. No. 547, dated 5th August, 1882.	Ditto.
	Garhwál district,	Block No. III, Sanch ...	10,880	17	...	...	10,880	17		
		Ditto IV, Laldhang ...	23,360	37	...	...	23,360	37		
		Ditto V, Khárá ...	56,320	88	...	...	56,320	88		
	Bijnor ditto ...	Chandi	20,882	32	18,497	..	39,999	62		
			...	...	620	...				
		Total ...	111,442	174	19,117	...	130,559	204		

Jhánsi ditto ...	Jhánsi ditto ...	Jhánsi	10,130	16	...	...	10,130	16	No additions or transfers during the year.	The areas are subject to correction.
		Mau	6,064	10	...	...	6,064	10		
		Garotha	5,127	8	...	...	5,127	8		
		Moth	2,272	4	...	...	2,272	4		
		Total ...	23,613	38	...	...	23,613	38		
Lalitpur ditto ...	Lalitpur ditto ...	Lalitpur	255	...	...	...	255	...	A. r. p. 102 0 30 of Government land given to zamindárs of Sukwan in exchange for an equal area of their land; *vide* Notifications Nos. 515 and 516, dated 26th July, 1882.	Ditto.
		Bánsi	4,733	7	...	...	4,733	7		
		Tálbahat	11,653	18	...	...	11,653	18		
		Balabahat	30,186	47	...	...	30,186	47		
		Banpur	4,745	7	...	...	4,745	7		
		Mahroni	1,283	2	...	...	1,283	2		
		Maraura	40,290	63	...	...	40,290	63		
		Total ...	93,145	144	...	...	93,145	144		
		GRAND TOTAL ...	942,146	1,472	19,117	18,497	942,766	1,473		
		Area of Protected Forests, 1882-83.								
Naini Tal Division...	Kumaun district,	Block No. I.	22,744	36	...	...	*22,744	36	No additions or transfers.	* Includes 3,299 acres of village lands.
		Ditto II.	193				193			
		Total ...	22,937	36	...	...	22,937	36		
Ránikhet ditto ...	Kumaun ditto ...	Block No. I., Machor ...	211	...	...	...	211	...	Ditto ...	The area is subject to correction on the receipt of area statements from the Forest Survey Department.
		Ditto II., Bhatronj ...	5,760	9	...	...	5,760	9		
		Ditto III., Tetalikhet or Seoni ...	4,480	7	...	...	4,480	7		
		Ditto IV., Siun ...	640	1	...	...	640	1		
		Ditto V., Bellekh ...	640	1	...	...	640	1		
		Ditto VI., Kathallekh ...	1,920	3	...	...	1,920	3		
		Ditto VII., Ganiadeoli ...	1,280	2	...	...	1,280	2		
		Ditto VIII., Karchuli ...	203	...	...	...	203	...		
		Ditto IX., Chilianao ...	640	1	...	...	640	1		
		Ditto X., Chaubatia ...	1,280	2	...	...	1,280	2		
		Ditto XII., Padholi ...	640	1	...	...	640	1		
		Ditto XIII., Dwarson ...	1,920	3	...	...	1,920	3		
		Ditto XIV., Airadeo ...	16,640	26	...	...	16,640	26		
		Ditto XV., Seahi Devi ...	1,920	3	...	...	1,920	3		
		Total ...	38,174	59	...	...	38,174	59		
Lalitpur ditto ...	Lalitpur ditto ...	Lalitpur	65	...	...	...	65	...	Ditto ...	The area is subject to correction.
		Talbahat	2,363	4	...	...	2,363	4		
		Total ...	2,428	4	...	...	2,428	4		
		GRAND TOTAL ...	63,539	99	...	...	63,539	99		

NAINI TAL:
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 49.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Bánda Forests, 1882-83.

Division or Range	Civil District or Territory.	Name of Forest.	*Area on 1st April*, 1882. Acres.	Equivalent in square miles.	*Added during the year.* Acres.	*Excluded or transferred to other heads* Acres.	*Area on 31st March*, 1883. Acres.	Equivalent in square miles.	No. and date of Notification of addition or transfer.	Remarks.
		I.—GOVERNMENT VILLAGES.								
Bánda ...	Bánda district...	1. Ambha	2,242 77	...	...	...	2,242·77	...		
		2. Amchurnarna	4,216·66	...	...	...	4,216·66	...		
		3. Uldan	714 02	...	...	...	714·02	...		
		4. Uncha Dih	413 88	...	...	...	413 88	...		
		5. Parasin ...	3,623 30	...	...	...	3,623 30	...		
		6. Jao	1,139·94	...	...	...	1,139 94	...		
		7. Chauri	4,036·70	...	...	...	4,036·70	...		
		8. Chullu Munshi Sheo Prashad,	1,627·66	...	...	...	1,627·66	...		
		9. Deori	4,273 31	...	...	...	4,273 31	...		
		10 Donda	5,416·14	...	...	...	5.416 14	...		
		11. Hajohan	4,618 80	...	...	...	4.618 80	...		
		12. Rukma khurd	132 62	...	...	...	132·62	...		
		13. Takrashan	644·80	...	...	...	644·80	...		
		14. Karka Pandri	730·93	...	...	...	730·93	...		
		15. Maldar	6,729 10	...	...	...	6,729 10	...		
		16 Mau	385 53	...	...	...	385·53	...		
		17. Kuluha	6,182·	...	...	...	6,182·	...		
		18. Ranipur	2,697·84	...	...	...	2,697·84	...		
		19. Gidraha	221·66	...	...	...	221·66	...		
		20. Cheriya Buzurg	1,237 83	...	...	...	1,237 83	...		
		21. Mamaniya	2 250·24	...	...	...	2,250·24	...		
		Total ...	53,535·73	...	...	...	53,535 73	...		
		II.—VILLAGES HELD UNDER 45-55 ARRANGEMENT.								
		22 Bhera	777·96	...	...	...	777 96	...		
		23 Tikariya	2,892·39	...	...	...	2,892 39	...		
		See No. 8. Chullu Munshi Bal Kishan,	26 25	...	...	...	26·25	...		
		See No. 8. Chullu Munshi Mukhramgir,	13·0	...	...	...	13·0	...		
		24. Cheolaha	1,502 38	...	...	...	1,502 35	...		
		25. Dadri	4,697·0	...	...	...	4,697·0	...		
		26. Rukma Buzurg	1,978·21	...	...	...	1,978·21	...		
		27. Karashan	728 43	...	...	...	728·43	...		
		Chidghatu (included in Karashan).	69 43	...	...	...	69 43	...		
		28. Kalyanpur	2,670·66	...	...	...	2,670·66	...		
		29. Gur Tarai	908 43	...	...	...	908·43	...		
		30. Maraiyan	1,885·68	...	...	...	1,885·68	...		
		31. Mahuli	948 76	...	...	...	948·76	...		
		32. Nihi	2,109 61	...	...	...	2,109 61	...		
			21,206·19	...	...	...	21,206 19	...		
		Total ...	74,743·92	...	...	...	74,743·92	...		
		Add Area outside the forest line...	716 0	...	...	...	716·0	...		
		GRAND TOTAL ...	75,459·92	...	...	...	75,459·92	...		

BANDA
Dated the 11th May, 1883.

W HOEY,
Offg. Collector.

ANNUAL FORM No. 50.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Plantations, 1882-83.

Division.	Name of Plantation.	On 1st April, 1882. Area.	On 1st April, 1882. Cost.	Added during 1882-83. Area.	Added during 1882-83. Cost.	On 31st March, 1883. Total area.	On 31st March, 1883. Total Cost.	Remarks.
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
Kumaun ...	Various plantations imperfectly stocked, incomplete, or success uncertain.	...	1,815	...	(a) 643	...	2,458	Principally sál. (a) Expenditure under A. VIII.*d*.
Naini Tal ...	Ayarpatta ...	5	16	...	...	5	16	Oak. (q. dilalata).
	Jabar ...	147	851	...	19	147	870	Deodar.
	China ...	77	454	...	57	77	511	Deodar, walnut, horse chestnut and oaks.
	Kahla ...	35	301	...	12	35	313	Walnut and deodar.
	Various other plantations imperfectly stocked, incomplete, or success uncertain.	...	1,386	...	437	..	2,823	Ash, walnut, horse chestnut and oaks.
	Total ...	264	3,008	...	(b) 525	264	3,533	(b) Expenditure under A. VIII.*d*.
Ránikhet ...	Jakhdeo (Upper) ...	367	13,056	...	...	367	13,056	Walnut, horse chestnut, ash and acacia.
	Ditto (Lower) ...							Gums, acacias, walnuts, horse chestnut, sweet chestnut and deodar.
	Garkhet ...							Deodar, oak, walnut and horse chestnut.
	Jalnoli ...							Walnut and horse chestnut.
	Darim khet ...							Walnut, horse chestnut and deodar.
	Ghingeru khal ...							Deodar, walnut, horse chestnut, ash, acacia, Pinus excelsa and alder.
	Various other plantations imperfectly stocked, incomplete, or success uncertain.	...	1,825	...	(c) 2,300	...	4,125	(c) Expenditure under A. VIII.*d*.
	Total ...	367	14,881	...	2,300	367	17,181	
Garhwál ...	Boxar ...	...	560	...	...	...	560	A failure, was sown with sál, and again with acacia catechu.
	Prempuri and Saneh ...	...	368	...	112	...	480	Mango groves on camping grounds.
	Total ...	...	928	...	(d) 112	..	1,040	(d) Expenditure under A. VIII.*d*.
Ganges ...	Haldukhata ...	...	38	...	152	...	190	Mango groves on camping grounds.
	Chila ...	...	...	...	93	...	93	
	Total ...	...	38	..	(e) 245	...	283	(e) Expenditure under A. VIII.*d*.
Jhánsi ...	Sukhwan and Dhukwan ...	24	444	3	100	27	544	Teak, sissu, mowha and babul.
	Babinsh ...	3	29	1	3	4	32	Ditto.
	Magarpur ...	9	227	1	60	10	287	Ditto.
	Gaunpura ...	18	275	7	277	25	552	Ditto.
	Khori ...	21	12	...	...	21	12	Ditto.
	Bhasneo ...	9	217	1	59	10	276	Ditto.
	Pargana Moth ...	461	86	...	...	461	86	Babul
	Rora ...	2	1	...	...	2	1	Ditto.
	Bugora ...	...	...	1	2	1	2	Ditto.
	Total ...	547	1,291	14	(f) 501	561	1,792	(f) Expenditure under A. VIII *d*.
Lalitpur ...	Kuchnowd ...	...	...	2	(g) 50	2	50	Sowing teak seed. (g) Expenditure under A. VIII.*d*.
Banda ...		...	...	...	(h) 3	...	3	Babul and mowha. (h) Expenditure under A. VIII.*d*.
	Total ...	1,178	21,961	16	(i) 4,379	1,194	26,340	(i) Total, Expenditure under A. VIII(*d*.)

NAINI TAL:
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 51—(SUGGESTED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of forest tracts protected from fire during the dry season of 1883, (*to accompany report for* 1882-83.)

Division.	Forest tracts.	*Up to 30th June, 1882.* Area actually protected.	Total cost.	*During dry season of 1883.* Area attempted to be protected.	Failures.	Actually protected.	Amount expended.	Total cost up to 30th June, 1883.	Year in which protection commenced	Remarks
		Acres.	Rs. a. p.	Acres.	Acres.	Acres.	Rs. a. p.	Rs. a. p.		
Naini Tal ...	Block I.	18,235	2,867 0 0	19,187	387	18,800	617 0 0	3,484 0 0	1876	paras. 47 to 57 of the report.
	Ditto II.	193		193	...	193				
	Total ...	18,428	2,867 0 0	19,380	387	18,993	617 0 0	3,484 0 0	...	
Ránikhet ...	Ránikhet reserved forest	4,795	885 0 0	4,800	10	4,790	115 0 0	1,000 0 0	1874	
	Padholi protected ditto	636	57 0 0	640	...	640	41 0 0	98 0 0	1882	
	Chaubattia ditto	1,289	83 0 0	1,280	...	1,280	66 0 0	149 0 0	1882	
	Ganiadeoli ditto	1,240	230 0 0	1,280	7	1,273	53 0 0	283 0 0	1878	
	Kathalekh ditto	1,500	256 0 0	1,700	...	1,700	87 0 0	343 0 0	1878	
	Seoni ditto	2,550	188 0 0	2,560	51	2,509	129 0 0	317 0 0	1880	
	Total ...	12,003	1,699 0 0	12,260	68	12,192	491 0 0	2,190 0 0	...	
Kumaun ...	Chilkia Mohan	44,540	22,739 0 0	46,240	...	46,240	3,650 0 0	26,389 0 0	1873	
	Kotah	23,298	6,940 0 0	23,298	79	23,219	2,280 0 0	9,220 0 0	1876	
	Garibalchand	7,112	4,673 0 0	7,112	...	7,112	457 0 0	5,130 0 0	1876	
	Horai	2,324	6,297 0 0	2,565	2,565	...	205 0 0	7,361 0 0	1876	
	Sudhmat Jaunia Sal	...		8,320	...	8,320	859 0 0			
	Nindhore	2,300	91 0 0	9,293	640	8,653	365 0 0	456 0 0	1882	
	Lakhman Mandi	...	...	2,000	...	2,000	112 0 0	112 0 0	1883	
	Total ...	79,574	40,740 0 0	98,828	3,284	95,544	7,928 0 0	48,668 0 0	...	
Garhwál ...	South Patli Dún range	47,871	26,288 0 0	47,971	2,073	45,898	2,674 0 0	32,341 0 0	1873	
	North Patli Dún range	48,827		50,783	40	50,743	2,989 0 0		1877	
	Sisham Khata block	2,020		2,020	...	2,020	390 0 0		1876	
	Rehar forest	10,498	2,063 0 0	12,478	...	12,478	1,899 0 0	3,962 0 0	1880	
	Total ...	109,216	28,351 0 0	113,252	2,113	111,139	7,952 0 0	38,303 0 0	...	

Gangoe ...	Tangnore lemed Deodar forests	...	8,867	39 0 0	8,872	...	8,872	51 0 0	90 0 0	1876	Vide
	Papidanda	...	521		521	...	521			1876	
	Hazara	...	300		2,000	...	2,000				
	Jogichour	...	1,500	1,906 0 0	1,503	...	1,500	827 0 0	2,733 0 0		
	Karia	...	3,000		3,000	.	3,000			1881	
	Anghermajhera	...	1,500		1,500	44	1,456				
	Sukrao	.	1,490		1,500	126	1,374		...	1882	
	Total	...	17,178	1,945 0 0	18,893	170	18,723	878 0 0	2,823 0 0	..	
Jhánsi ...	Sukhwan	...	542	1,065 0 0	384	...	384	40 0 0	1 155 0 0	1874	
	Dhukwan ...	.	860		480	...	480	50 0 0			
	Magarpur	...	20		...	...	...	...		1881	
	Bhyaneo	...	18		...	...	...	...			
	Total	...	1,440	1,065 0 0	864	..	864	90 0 0	1 155 0 0		
Lalitpur ...	Deogarh	...	998	33 0 0	998	. .	998	100 0 0	633 0 0	1875	
	Garauli	...	751		751	...	751				
	Total	...	1,749	533 0 0	1,749	...	1,749	100 0 0	633 0 0	...	
	GRAND TOTAL	...	239,588	77,200 0 0	265,226	6,022	259,204	18,056 0 0	95,256 0 0	..	

		Rs.
Charged in previous years	...	... 77,200
" " 1882-83	...	... *10,623
" " 1883-84	...	... 7,433
Total	...	... *95,256

* Rs 6,133 of the total expenditure under A. VIIIc. during 1882 83 are included in the amount "charged in previous years"

NAINI TAL.
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 52.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Prosecutions for breaches of Forest Rules, during 1882-83.

Forest Division and Civil District.	New cases of the year.						Total cases.	Disposed of during the year.						Cases pending at close of year.
	Cases pending from 1881-82.	Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Naini Tal Division.														
Kumaun district ...	...	4	4	...	1	9	9	6	7	3	6	9	13	All tried by divisional officer, in his Magisterial capacity.
Ránikhet Division.														
Kumaun district ...	...	3	11	2	...	16	16	15	41	1	1	16	42	By Cantonment Magistrate.
Kumaun Division.														
Kumaun district ...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Garhwál Division.														
Garhwál district ...	...	...	2	...	...	2	2	1	7	...	...	1	7	1 By the Garhwál District Magistrate.
Ganges Division.														
Garhwál district ...	...	...	4	1	...	5	5	2	3	2	8	4	11	1 By the Garhwál District Magistrate.
Ditto ...	...	...	...	...	1	1	1	...	...	1	1	1	1	By the Saháranpur District Magistrate.
Ditto ...	2	...	6	...	...	6	8	6	6	...	...	6	6	2 By His Highness the Rája of Tehri.
	2	...	10	1	1	12	14	8	9	3	9	11	18	3
Jhánsi Division.														
Jhánsi district ...	...	...	5	...	...	5	5	5	28	...	...	5	28	By the Jhánsi District Officer.
Lalitpur Division.														
Lalitpur district ...	...	...	12	...	4	16	16	15	26	1	1	16	27	By the Lalitpur District Officer.
Total ...	2	7	44	8	6	60	62	50	118	8	17	58	135	4

NAINI TAL:
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 53.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of Revenue of the different Divisions, 1882-83.

Budget Heads Receipts.	Direction.	Naini Tal Division.	Kumaun Division.	Ránikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division	Bánda Division.	Total.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency:—										
(a) Timber	...	14,129 1 3	21,260 2 4	...	11,104 13 7	15,020 6 4	31 14 7	1,005 10 4	853 4 3	68,405 4 8
(b) Firewood and charcoal	...	18,248 2 0	...	19,650 15 8	...	...	582 4 0	...	...	37,431 5 8
(c) Bamboos	...	...	...	...	...	...	73 6 10	4,712 5 4	179 10 8	4,965 6 10
(d) Sandal-wood	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce ...	...	60 0 0	...	...	...	...	316 1 11	...	476 3 0	852 4 11
II.—Timber and other produce removed from the forests by consumers or purchasers:—										
(a) Timber	...	79 8 0	79,231 3 4	621 15 0	81,142 13 3	11,200 11 1	10 6 0	1,082 2 0	87 15 6	1,73,456 10 2
(b) Firewood and charcoal	...	1,708 12 0	4,042 7 4	232 9 9	1,266 0 3	1,854 0 6	762 15 6	121 0 0	369 3 9	10,357 1 1
(c) Bamboos	...	22 6 0	9,479 11 9	...	23,858 15 0	35,572 1 9	.	788 8 3	67 0 0	69,788 10 1
(d) Grazing and fodder grass	...	225 9 6	8,025 0 7	474 0 0	2,366 4 8	1,820 7 0	2,599 6 6	3,769 1 0	775 4 3	19,555 1 6
(e) Other minor produce	...	88 0 0	13,935 4 10	615 14 6	4,999 0 9	1,859 5 2	489 5 11	1,362 2 4	2,385 8 6	25,734 10 0
III.—Confiscated, drift and waif wood ...	...	...	46 3 0	...	306 6 7	281 9 1	...	...	...	634 2 8
IV.—Revenue from forests not managed by Government:—										
(a) Duty on foreign timber and other forest produce.	...	...	...	...	...	...	...	...	109 0 0	109 0 0
(b) Revenue from shared and private forests.	...	...	...	...	...	...	...	...	...	...
V.—Miscellaneous:—										
(a) Fines and forfeitures	...	349 10 0	599 6 3	149 8 0	437 14 0	198 9 4	...	...	7 9 0	1,742 8 7
(b) Refunds	...	287 2 0	...	0 14 0	11 0 6	10 0 2	...	...	...	309 0 8
(c) Other sources	...	37 0 0	2,600 15 6	40 3 9	414 14 2	58 7 6	41 2 0	...	1,469 1 3	4,661 12 2
Total, Receipts ...	...	35,235 2 9	1,19,220 6 11	21,786 0 8	1,25,908 2 9	67,875 9 3	4,856 15 3	12,340 13 3	6,779 12 2	4,14,002 15 0

CALCUTTA:
The 31st May, 1883.

T VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 53—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of expenditure of the different Divisions, 1882-83.

Budget heads.	Direction	Naini Tal Division.	Kumaun Division.	Ranikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency —										
(a) Timber	...	7,357 9 4	22,997 14 8	...	2,630 4 10	8,683 12 6	4 7 1	97 15 6	525 1 3	49,297 1 2
(b) Firewood and charcoal	...	12,824 7 7	...	15,269 3 0	...	...	519 15 7	...	...	28,181 10 2
(c) Bamboos	...	...	...	...	...	...	10 4 4	960 8 7	121 12 3	1,092 9 2
(d) Sandal-wood	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	286 10 4	...	...	...	...	257 15 4	...	443 2 6	987 12 2
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	8,997 9 7	...	6,133 15 1	3,678 11 3	...	...	...	18,810 3 11
III.—Confiscated, drift and waif wood	...	...	...	...	27 9 0	40 0 0	...	...	...	67 9 0
IV.—Revenue from forests not managed by Government:—										
(a) Duty on foreign timber and other forests produce	...	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests, and payments to shareholders in forests managed by Government ...	...	...	...	...	...	4,000 0 0	...	...	325 0 0	4,325 0 0
VI.—Live stock, stores, tools and plant:—										
(a) Purchase of cattle	...	...	...	...	...	...	99 0 0	152 0 0	...	251 0 0
(b) Feed and keep of cattle	...	...	2,137 3 3	...	1,655 3 9	1,097 8 6	307 14 2	941 5 7	...	6,139 3 3
(c) Stores, tools and plant	135 0 0	195 13 0	556 6 6	59 11 0	800 8 0	99 10 0	68 14 0	200 4 0	98 15 6	2,211 2 0
VII.—Communications and buildings:—										
(a) Roads and bridges	...	342 13 3	11,999 11 8	1,192 1 4	19,023 12 2	3,445 3 11	25 0 0	...	37 13 3	35,066 7 7
(b) Buildings	94 4 0	916 13 3	2,746 2 1	134 10 0	2,500 0 0	3,552 3 4	436 0 0	300 0 0	29 9 0	10,709 9 8
(c) Other works	...	...	38 10 3	...	...	...	...	40 0 0	10 0 0	88 10 3
VIII.—Demarcation, improvement and extension of forests —										
(a) Demarcation	...	...	354 2 0	10 8 0	1,330 3 1	1,427 7 0	...	...	...	3,122 4 1
(b) Compensation for land and rights ...	...	...	...	...	...	...	...	...	20 9 0	20 9 0
(c) Surveys and working-plans	...	921 1 10	155 13 3	68 0 0	...	...	...	...	...	1,144 15 1
(d) Plantations	...	524 14 9	643 4 0	2,299 9 5	112 0 6	214 11 3	500 12 11	50 0 0	3 5 6	4,378 10 4
(e) Protection from fire	...	617 2 4	6,817 4 4	520 15 4	7,788 13 7	771 15 11	90 0 0	100 0 0	50 0 0	16,756 3 6
(f) Other works	...	...	25 0 0	471 3 7	100 0 0	28 10 2	10 10 0	...	346 2 6	981 10 3
IX.—Miscellaneous:—										
(a) Refunds	...	3 9 6	...	...	...	...	...	...	...	3 9 6
(b) Law charges	...	...	...	...	...	...	...	...	...	...
(c) Other charges	...	...	53 10 9	36 4 7	127 3 0	1,247 5 4	51 3 6	4 0 0	...	1,519 11 2
Total, A.—Conservancy and Works ...	229 4 0	23,568 15 2	57,522 12 4	19,988 2 3	42,229 9 0	28,317 3 2	2,382 0 11	2,846 1 8	2,011 6 9	1,79,085 7 3

CALCUTTA:
The 31st May, 1883.

T. VANSOMEREN, MAJOR,
Assistant Comptroller-General Forests.

ANNUAL FORM No. 53.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of expenditure of the different Divisions, 1882-83.

Budget Heads.	Direction.	Naini Tal Division.	Kumaun Division.	Ránikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
B.—ESTABLISHMENT.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Brought forward, Total, A.—Conservancy and works.	229 4 0	23,558 15 2	57,522 12 4	19,988 2 3	42,229 9 0	28,517 3 2	2,382 0 11	2,846 1 8	2,011 6 9	1,79,085 7 3
I.—*Salaries* :—										
(a) Conservators	17,393 5 4	...	...	...	...	...	...	...	...	17,393 5 4
(b) Superior officers	...	6,296 10 8	14,400 0 0	2,450 0 0	2,175 12 10	10,665 8 2	...	...	...	35,987 15 8
(c) Subordinate forest and depôt establishments.	...	1,049 13 6	9,350 5 1	1,831 7 11	6,247 0 4	3,362 10 7	1,104 0 0	1,531 15 2	790 8 8	25,267 11 3
(d) Office establishments	3,756 0 0	240 0 0	2,100 0 0	540 0 0	1,712 0 0	1,416 0 0	60 0 0	204 0 0	630 0 0	10,658 0 0
(e) Deputation and special allowances.	...	...	3,000 0 0	1,800 0 0	...	...	...	...	...	4,800 0 0
II.—*Travelling Allowances* :—										
(a) Conservators	1,448 0 0	...	...	...	...	...	...	...	...	1,448 0 0
(b) Superior officers	...	976 8 0	1,621 7 0	233 2 0	760 0 0	1,630 7 0	...	...	...	5,221 8 0
(c) Subordinate forest and depôt establishments.	...	...	431 15 11	...	259 8 11	135 5 8	125 2 5	115 4 8	...	1,067 5 7
(d) Office establishments	48 0 0	6 13 5	410 11 9	48 5 6	345 0 3	471 10 9	...	...	...	1,330 9 8
III.—*Contingencies* :—										
(a) Stationery	1 13 0	24 0 0	107 11 1	13 14 4	65 4 0	92 8 9	10 8 0	16 9 9	12 10 0	344 14 11
(b) Carriage of tents and records ...	570 5 6	190 10 6	243 15 5	16 6 4	243 1 0	419 0 7	...	...	...	1,682 7 4
(c) Rents, rates and taxes ...	49 0 0	60 0 0	26 0 0	...	24 0 0	...	12 0 0	...	...	171 0 0
(d) Pay of police guards	300 0 0	...	...	...	...	...	...	...	...	300 0 0
(e) Official postage	182 15 6	17 2 0	93 4 6	30 4 0	66 6 0	70 6 6	7 12 0	48 3 0	...	516 5 6
(f) Sundries	235 15 0	318 7 6	230 10 2	27 6 0	240 15 2	150 1 1	5 15 0	10 14 0	151 15 6	1,372 3 5
Total B.—Establishments ...	23,985 6 4	9,180 1 7	32,016 0 11	6,990 14 1	12,139 0 6	18,413 11 1	1,325 5 5	1,926 14 7	1,585 0 2	1,07,562 6 8
GRAND TOTAL OF EXPENDITURE ...	24,214 10 4	32,739 0 9	89,538 13 3	26,979 0 4	54,368 9 6	46,730 14 3	3,707 6 4	4,773 0 3	3,596 6 11	2,86,647 13 11

CALCUTTA:
The 31st May, 1883.

T. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 54.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

DR. *Account current for the year* 1882-83. CR.

Heads of account.	Rs. a. p.	Rs. a. p.	Heads of account.	Rs. a. p.	Rs. a. p.
To cash balance on 1st April, 1882	...	16,153 9 6	By expenditure as per annual summary (Form No. 53) ...	...	2,86,647 13 11
Revenue as per annual summary (Form No 53) ...	...	4,14,002 15 0	*Forest cash remittances (Local).*		
Service funds.			Remittances to Treasuries	3,54,433 9 10	
Uncovenanted Service Family Pension Fund, Bengal	...	1,246 10 0	Inter Divisional transfers	294 14 6	
Forest cash remittances (Local.)					3,54,728 8 4
Forest Cheques drawn	2,80,999 14 10		Advances receverable	...	41,435 0 9
Inter Divisional transfers	537 2 0		*Account current (other Governments.)*		
		2,81,537 0 10	Government of the Panjáb	...	1,000 0 0
Advances recoverable	...	42,869 7 3	*Inter departmental transfers.*		
Account current (other Governments.)			Public Works Department (other branches)	7,046 5 4	
Government of India	...	177 2 8	Military Department, Bengal	32,284 1 8	
Inter departmental transfers.			Civil Department, Miscellaneous	13 4 9	
Public Works Department (other branches)	449 2 0		Telegraph Department	31 4 0	
Civil Department Mathematical Instrument Department ...	223 0 0	672 2 0			39 374 15 9
			Cash balance on 31st March, 1883	...	33,472 8 6
Total ...	...	7,56,658 15 3	Total ...	...	7,56,658 15 3

CALCUTTA:
The 31st May, 1883

T. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 55.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outstandings and Liabilities on account of Contractors and Disbursers, for 1882-83.

Division.	Department debtor.			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities.)	
		TRANSACTIONS DEBITED AND CREDITED TO ADVANCES RECOVERABLE.							
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
Direction	...	348 2 0	348 2 0	1 2 0	417 0 0	418 2 0	70 0 0	...	
Naini Tal Division ...	...	5,932 10 6	5,932 10 6	759 13 4	5,665 1 3	6,424 14 7	492 4 1	...	
Kumaun "	...	19,200 6 0	19,200 6 0	4,240 6 0	18,175 0 0	22,415 6 0	3,215 0 0	...	
Ránikhet "	...	300 0 0	300 0 0	500 0 0	300 0 0	800 0 0	500 0 0	...	
Garhwál "	...	4,636 1 11	4,636 1 11	(a) 3,596 1 11	4,920 0 0	8,516 1 11	3,880 0 0	...	(a) Includes Rs. 10 in rectification of an omission in the Bijnor Division Ledger Abstract for July, 1877, adjusted in the accounts of the Garhwál Division for July, 1882, and shewn as opening balance of A. R. The amount having been recovered in July, 1882. *Vide* Assistant Comptroller-General's objection statement to the accounts of the Garhwál Division for July, 1882.
Gangea "	...	9,177 1 6	9,177 1 6	1,363 12 9	8,642 14 2	10,006 10 11	1,029 9 5	...	
Jhánsi "	...	1,432 2 10	1,432 2 10	360 0 0	1,272 2 10	1,632 2 10	600 0 0	...	
Lalitpur "	...	755 6 9	755 6 9	...	755 6 9	755 6 9	...	...	
Bánda "	...	1,087 7 9	1,087 7 9	...	1,087 7 9	1,087 7 9	...	...	
Total ...	...	42,869 7 3	42,869 7 3	10,821 4 0	41,435 0 9	52,256 4 9	9,386 13 6	...	
		TRANSACTIONS ADJUSTED FINALLY TO SERVICE HEADS.							
Ránikhet Division ...	3,721 13 6	...	3,721 13 6	...	3,721 13 6	3,721 13 6	...	...	
GRAND TOTAL ...	3,721 13 6	42,869 7 3	46,591 4 9	10,821 4 0	45,156 14 3	55,978 2 3	9,386 13 6	...	

CALCUTTA:
The 31st May, 1883.

T. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 56.—(PRESCRIBED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue received and outstandings on account of revenue during 1882-83.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	Timber sales, grazing dues, and minor produce, &c. ...	...	...	...	...	...	
Naini Tal Dn. ...	Ditto, ditto, ditto ...	350 8 9	34,884 10 0	35,235 2 9	35,235 2 9	...	
Kumaun „ ...	Ditto, ditto, ditto ...	...	1,39,220 6 11	1,39,220 6 11	1,39,220 6 11	...	Includes Rs. 907-9-0 received in advance.
Ránikhet „ ...	Ditto, ditto, ditto ...	0 4 0	21,785 12 8	21,786 0 8	21,786 0 8	...	
Garhwál „ ...	Ditto, ditto, ditto ...	...	1,25,908 2 9	1,25,908 2 9	1,25,908 2 9	...	
Ganges „ ...	Ditto, ditto, ditto ...	...	67,875 9 3	67,875 9 3	67,875 9 3	...	Includes Rs 13,000 received in advance.
Jhánsi „ ...	Ditto, ditto, ditto ...	...	4,856 15 3	4,856 15 3	4,856 15 3	...	
Lalitpur „ ...	Ditto, ditto, ditto ...	...	12,340 13 3	12,340 13 3	12,340 13 3	...	
Bánda „ ...	Ditto, ditto, ditto ...	2,120 2 6	5,191 5 5	7,311 7 11	7,039 3 5	272 4 6	Includes Rs. 259-7-3 written off under L. G. order No. 698, dated 9th October, 1882.
	Total ...	2,470 15 3	4,12,063 11 6	4,14,534 10 9	a 4,14,262 6 3	272 4 6	

a Realization as per form No. 35 = 4,14,002 15 0
Amount written off under L. G. order = 259 7 3
Total ... 4,14,262 6 3

CALCUTTA:
The 31st May, 1883.

T. VANSOMEREN, MAJOR,
Assistant Controller-General (Forests.)

ANNUAL FORM No. 57.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Financial results of the year 1882-83.

Division.	*Timber and other produce removed from the forests by Government Agency.*		*Other revenue.*		*Formation, protection and improvement of forests.*	*Total.*		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs	
Naini Tal ...	32,437	24,316	2,798	4,081	6,342	35,235	34,739	
Ránikhet ...	19,651	18,758	2,135	3,362	6,859	21,786	28,979	
Kumaun ...	21,260	43,463	1,17,960	28,116	27,960	1,39,220	99,539	
Garhwál ...	11,105	17,121	1,14,803	19,425	23,823	1,25,908	60,369	
Ganges ...	15,020	23,169	52,856	13,605	12,957	67,876	49,731	
Jhánsi ...	934	1,715	3,903	683	1,524	4,857	3,922	
Lalitpur ...	5,718	2,662	6,623	957	1,754	12,341	5,373	
Bánda ...	1,509	2,151	5,271	687	1,158	6,780	3,996	
Total ...	1,07,654	1,33,355	3,06,349	70,916	82,377	4,14,003	2,86,648	

NAINI TAL.
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P and Oudh.

FORM No. 58.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Trees felled by Government Agency during the year 1882-83. (*Selection fellings.*)

Division.	Trees felled. Description.	Number.	Remarks.
Naini Tal ...	Chír ...	676	For Commissariat fuel.
	Oak ...	67	
	Rhododendron ...	435	
	Miscellaneous ...	88	
	Chír ...	280	Burnt into charcoal.
	Oak ...	22	
	Chír (1 dead) ...	294	Sawn into scantlings.
	Ash ...	3	
	Oak (dead) ...	1	Fuel for Government house.
	Miscellaneous (dead) ...	4	
	Total ...	1,870	
Ránikhet ...	Chír ...	164	For Commissariat fuel.
	Oak ...	201	
	Miscellaneous ...	383	
	Chír ...	2,211	Cut up in clearing boundary and fire lines, and used up for Commissariat fuel.
	Oak ...	129	
	Miscellaneous ...	88	
	Chír ...	2,637	All small trees 2,603 chír and 33 oak for repair and construction at fences and 34 oak for repair of Government buildings.
	Oak ...	33	
	Total ...	5,846	
Kumáun ...	Sál ...	1,872	Sawn into scantlings.
	Sein ...	568	
	Haldu ...	25	
	Jaman ...	26	
	Total ...	2,491	
Garhwál ...	*Nil* ...	...	
Ganges ...	Sál ...	59	Made into ballas for Oudh and Rohilkhand Railway.
	Sein ...	518	Sawn into scantlings.
	Kokat (Miscellaneous),	10,968	227 of these sawn into scantlings, the rest (10,741) converted into ballas, bullis and tors for the Northern Division, Ganges Canal.
	Jaman ...	103	Sawn into scantlings.
	Total ...	11,659	
Jhánsi ...	Teak ...	55	Sold as ballis.
	Miscellaneous ...	416	
	Total ...	471	
Lalitpur ...	Teak ...	20	Ditto.
	Miscellaneous ...	3,554	
	Total ...	3,574	
Bánda ...	Mahua ...	7	Sawn into scantlings.
	GRAND TOTAL ...	25,898	

Abstract.

Description of trees.	1st class above 6′ in girth.	2nd class, 4½′—6′	3rd class, 1½′—4½′	4th class, under 1½′	Total of each kind of tree.	Total of c. ft.
Chír ...	271	564	5,198	229	6,262	128,344
Oak ...	140	137	184	8	453	24,535
Rhododendron ...	46	125	222	42	435	12,620
Sál ...	528	1,046	348	...	1,922	47,730
Sein ...	965	121	...	...	1,086	27,864
Ash ...	...	3	...	...	3	45
Teak ...	...	...	...	75	75	605
Jamun ...	26	103	...	...	129	3,082
Haldu ...	25	...	...	...	25	496
Mahua ...	...	7	...	...	7	175
Miscellaneous ...	65	417	4,797	10,222	15,501	67,829
Total ...	2,066	2,513	10,749	10,570	25,898	313,325

NAINI TAL.
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle N.-W. P. and Oudh.

FORM No. 59.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outturn of timber and other produce cut and collected by Government Agency, during the year 1882-83.

Division.	Produce cut and collected.				Remarks
	How obtained.	Description.	Number or quantity	Cubic feet.	
Naini Tal ...	Selection fellings ..	Chirelogs	1,511	14,750	
	Ditto ditto ...	„ karis	3,361	5,503	
	Fallen timber ...	Tun karis	2	3	
	Selection fellings ..	Ash karis	3	11	
	Ditto ditto ...	Chir planks ...	17,735	9,477	
	Fallen timber ...	Alder planks ...	152	147	
	Ditto ditto ...	Shisham planks ...	17	12	
	Ditto ditto ...	Tun planks	81	87	
	Selection fellings ..	Ash planks	51	74	
	Ditto ditto ...	Chir ballis	56	88	
	Ditto ditto ...	„ slabs	883	435	
		Total, timber ...	23,887	30,547	
	Selection fellings ..	Firewood ... mds.	33,357	...	
	Ditto ditto ...	Charcoal ... „	7,524	...	
	Ditto ditto ...	Lime ... „	240	...	
Ránikhet ...	Selection fellings ..	Firewood ... „	21,344	...	
	Fallen wood ...	„ ... „	13,903	..	
	Clearances ...	„ ... „	21,939	...	
		Total, firewood ...	57,166	...	
Kumaun ...	Selection fellings ..	Sál logs	11	609	
	Ditto ditto ...	„ sleepers ...	11,483	15,311	
	Ditto ditto ...	Haldu sleepers ...	50	75	
	Ditto ditto ...	Sál karis	18,393	30,165	
	Ditto ditto ...	Haldu karis ...	264	419	
	Ditto ditto ...	Sein karis	5,076	9,677	
	Ditto ditto ...	Jamun karis ...	204	324	
	Ditto ditto ...	Sal joists	188	289	
	Ditto ditto ...	Haldu planks ...	6	2	
	Ditto ditto ...	Sein planks ...	54	59	
	Clearances ...	Sál karis ...	394	648	
	Ditto ...	Tun planks ...	5	3	
		Total, timber ...	36,128	57,581	
	Confiscated drift and waif wood.	Sál trees	2	13	
		„ pieces	21	51	
		Khair pieces ...	120	225	
		Bamboos	42	...	
		Hides	35	...	
		Pitara	1	...	
		Pat head loads ...	4	...	
Garhwál ...	Confiscated drift and waif wood.	Sál pieces	4	17	
		Shisham pieces ..	4	16	
		Miscellaneous pieces ...	30	120	
Ganges ...	Selection fellings...	Sál ballas	50	644	
	Ditto ditto ...	Sein karis	9,158	14,797	
	Ditto ditto ...	Kokat karis ...	3,114	5,037	
	Ditto ditto ...	Jamun karis ...	1,146	1,919	
	Ditto ditto ...	Kokat ballas, ballis and tors.	22,374	47,145	
		Total, timber ...	35,842	69,542	
	Confiscated drift and waif wood.	Pieces	76	665	
		Firewood ... ... mds.	450	...	
		Bamboos	120	...	
Jhánsi ..	Selection fellings...	Miscellaneous ballis ...	596	894	
	Thinnings ...	Firewood ... ... mds.	2,357	...	
	Tops and branches,	Charcoal ... ... „	542	...	
	Thinnings ...	Bamboos	8,570	...	
	Ditto ...	Kiras	5,705	...	
	Ditto ...	Kurias	36,284	...	
Lalitpur ...	Selection fellings...	Miscellaneous ballis ...	4,221	5,937	
	Thinnings ...	Bamboos	1,117,009	...	
	Ditto ...	Kurias	152,611	...	

FORM No. 59.—(SUGGESTED.).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outturn of timber and other produce cut and collected by Government Agency, during the year 1882-83—(concluded).

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or quantity.	Cubic feet.	
Bánda ...	Selection fellings...	Miscellaneous karis ..	65	98	
	Conversion ...	,, ballis ...	7,447	7,447	
	Ditto ...	Dandia	32	14	
	Ditto ...	Dhura	1,770	221	
	Ditto ...	Sachra	213	36	
	Ditto ...	Harris	64	32	
	Ditto ...	Koron	6,703	2,234	
	Ditto ...	Yokes	66	8	
		Total, timber ...	16,360	10,092	
	Thinnings ...	Bamboos	31,300	...	
	Collection, &c. ...	Hides	9	...	
	Ditto ditto ...	Mahua ... mds.	231	...	
	Ditto ditto ...	Aonla ... ,,	20	...	
	Ditto ditto ...	Lime ... ,,	2,065	...	
	Confiscated drift and waif wood.	Miscellaneous ballis ...	46	46	
	Abstract of the Circle.				
		Sál logs	11	609	
		Chír logs	1,511	14,750	
		Sál sleepers ...	11,483	15,311	
		Haldu sleepers ...	50	75	
		Sál karis	18,787	30,813	
		Haldu karis ...	264	419	
		Sein karis	14,234	24,474	
		Chír karis	3,361	5,303	
		Jaman karis ...	1,350	2,243	
		Kokat karis ...	3,114	5,037	
		Tun karis	2	3	
		Ash karis	8	11	
		Miscellaneous ...	65	98	
		Haldu planks ...	6	2	
		Sein planks ...	54	59	
		Chír planks ...	17,735	9,477	
		Alder planks ...	152	147	
		Shisham planks ...	17	12	
		Tun planks ...	86	90	
		Ash planks ...	5[illegible]	34	
		Sál joras and ballas ...	238	933	
		Kokat ballas, ballis and tors.	22,374	47,145	
		Chír ballis and slabs ...	969	523	
		Miscellaneous ballis ...	12,264	14,278	
		Dandia, dhura, sachra, harris, koron and yokes.	8,848	2,547	
		Total, timber ...	117,034	174,393	
		Firewood mds.	92,900	...	
		Charcoal... ,,	8,066	...	
		Bamboos... No.	1,156,939	...	
		Kiras ... ,,	5,705	...	
		Kurias ... ,,	188,845	...	
		Hides ... ,,	9	...	
		Mahua ... mds.	231	...	
		Aonla ... ,,	20	...	
		Lime ... ,,	2,305	...	
	Confiscated drift and waif wood.				
		Trees	2	13	
		Pieces	301	1,140	
		Firewood ... mds.	450	...	
		Bamboos ... No.	162	...	
		Hides ... ,,	35	...	
		Pitara ... ,,	1	...	
		Pat loads ... ,,	4	...	

NAINI TAL:
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 60.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce received from Forests in Sale Depôts, during the year 1882-83.

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks.
Naini Tal ...	Naini Tal ...	Chir karis	24	37	
		Tun karis	2	3	
		Ash karis	7	9	
		Chir planks	376	190	
		Alder planks	152	147	
		Shisham planks... ...	17	12	
		Tun planks	81	87	
		Charcoal	7,524	maunds.	
		Lime	598	"	
	Kahla ...	Chir karis	2,917	4,616	
		Chir planks	20,729	11,755	
		Chir ballis	24	17	
		Chir slabs	131	89	
Ránikhet ...	Ránikhet ...	Firewood	44,938	maunds.	
	Chaubattia ...	Firewood	16,066	"	
Kumaun ..	Rámnagar ...	Sál karis	16,297	26,877	
		Haldu karis	415	659	
		Sein karis	3,786	6,559	
		Jaman karis	375	594	
		Haldu planks	6	2	
		Tun planks	5	3	
		Sál joras	87	135	
		Sál logs	118	9 590	
		Sál sleepers	11,476	15,301	
	Chorgalia ...	Sál karis	5,452	8,608	
		Sein karis	2,232	3,919	
		Sein planks	43	46	
Garhwál ...	Sanch ...	Sein karis	1,755	2,280	
Ganges ...	Kauria ...	Sein karis	1,770	2,659	
		Miscellaneous ballis ...	471	294	
Jhánsi ...	Jhánsi ...	Firewood	1,260	maunds.	
		Charcoal	248	"	
		Bamboos	6,495	Number.	
		Kiras	3,717	"	
		Kurias	28,229	"	
	Mau ...	Firewood	576	maunds.	
		Charcoal	294	"	
		Kiras	1,983	Numbers.	
		Kurias	8,005	"	
Lalitpur ...	Lalitpur ...	Miscellaneous ballis ...	116	355	
		Bamboos	49,132	"	
	Talbahat ...	Miscellaneous ballis ...	656	715	
		Bamboos	226,261	"	
	Maraura ...	Miscellaneous ballis ...	1,453	1,561	
		Bamboos	60,385	"	
		Kurias	26,931	"	
Báuda ...	Manikpur ...	Miscellaneous ballis ...	2,885	2,885	
		Dandia	10	5	
		Dhura	1,538	192	
		Harris	25	13	
		Yokes	32	4	
		Bamboos	6,491	"	
	Karwi ...	Miscellaneous ballis ...	8	8	
		Dhura	8	1	
		Koron	575	191	
		Yokes	2	...	
		Hides	7	Number.	

Abstract of the Circle.

Sál logs	118	9,590	
Sál sleepers	11,476	15,301	
Sál karis	21,749	35,685	
Haldu karis	415	659	
Sein karis	9,523	15,417	
Chir karis	2,941	4,625	
Jaman karis	375	594	
Tún karis	2	3	
Ash karis	7	9	
Haldu planks	6	2	
Sein planks	43	46	
Chir planks	21,105	11,945	
Alder, shisham & tun planks,	225	249	
Sál joras	87	135	
Chir ballis and slabs ...	155	106	
Miscellaneous ballis ...	5,589	5,818	
Dandia, dhúra, koron, harris, and yokes.	2,190	406	
Total, timber ...	76,036	100,616	
Firewood	62,140	maunds.	
Charcoal	6,066	"	
Bamboos	348,764	Number.	
Kiras	5,700	"	
Kurias	63,165	"	
Hides	7	"	
Lime	598	maunds.	

NAINI TAL
The 24th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 61.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government Agency, during the year 1882-83.

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		Sold from Depôts			
Naini Tal ...	Naini Tal ...	Chir karis	28	43	
		Tun karis	2	3	
		Ash karis	3	7	
		Chir planks	344	173	
		Alder planks	152	147	
		Sisham planks	17	12	
		Tun planks	81	87	
		Charcoal	5,586	maunds.	
		Lime	60	"	
	Kahla ...	Chir karis	5,032	8,212	
		Chir planks	21,908	12,150	
		Chir ballis	6	3	
		Chir slabs	60	43	
Ránikhet ..	Ránikhet ...	Fireweod	32,780	maunds.	
	Chaubattia ...	Firewood	14,058	"	
Kumaun ...	Rámnagar ...	Sál logs	14	692	
		Haldu logs	2	92	
		Sál karis	5,307	8,331	
		Haldu karis	749	1,176	
		Sein karis	8,886	13,317	
		Sál planks	30	40	
		Haldu planks	175	101	
		Sál joras	85	128	
	Chorgalia ...	Sál sleepers	1,100	1,466	
		Sál karis	2	2	
		Sein karis	800	1,333	
Garhwál ...	Saneh ...	Sein karis	13,368	21,701	
Ganges ...	Lachmanjhula ...	Sein karis	8	7	
		Kukat karis	240	368	
	Kauria ...	Sein karis	2,400	3,930	
		Kukat karis	3,788	6,179	
Jhánsi ...	Jhánsi ...	Miscellaneous ballis ...	318	199	
		Firewood	1,163	maunds.	
		Charcoal	307	"	
		Bamboos	7,339	number.	
		Kiras	1,609	"	
		Kurias	10,775	"	
	Mau ...	Firewood	834	maunds.	
		Charcoal	339	"	
		Kiras	2,046	number.	
		Kurias	2,003	"	
Lalitpur ...	Lalitpur ...	Miscellaneous ballis ...	160	421	
		Bamboos	65,607	number.	
	Talbahat ...	Miscellaneous ballis ...	656	715	
		Bamboos	2,27,661	number.	
	Maraura ...	Miscellaneous ballis ...	1,476	1,596	
		Bamboos	60,331	number.	
		Kurias	27,447	"	
Banda ...	Manikpur ...	Miscellaneous ballis ...	1,311	1,590	
		Dandia	6	3	
		Dhura	602	238	
		Harris	8	4	
		Yokes	4	1	
		Bamboos	11,225	number.	
		Lime	324	maunds.	
	Karwi ...	Miscellaneous ballis ...	629	629	
		Dandia	4	2	
		Dhura	361	177	
		Koron	575	191	
		Yokes	2	...	
		Bamboos	1,000	number.	
		Hides	7	"	

FORM No. 61.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government Agency, during the year 1882-83—(continued).

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		Sold locally.			
Naini Tal ...	Hinan and Charta,	Chir ballis	62	71	
	Various ...	Chir slabs	752	246	
		Firewood	33,357	maunds.	
Kumaun ...	Various ...	Sál trees	2	13	
		Sál timber pieces ...	21	51	
		Khair timber pieces ...	120	225	
		Bamboos	42	number.	
		Hides	35	"	
		Pitara	1	"	
		Pat	4	loads.	
Gathwál ...	Chandi Sub-Division.	Confiscated drift and waif wood.	38	153	
Ganges ...	Bhagirathi Forests,	Sál ballas	50	644	
		Kukat ballas, ballis and tors,	9,631	18,725	
		Boxwood pieces ...	4	6	
	Bhagirathi and Pell rivers:	Confiscated drift and waif wood.	76	665	
		Firewood	450	maunds.	
		Bamboos	120	number.	
Lalitpur ...	Various ...	Miscellaneous ballis ...	1,996	3,305	
		Bamboos	781,231	number.	
		Kurias	125,680	"	
Bánda ...	Various ...	Miscellaneous karis ...	65	98	
		Ditto ballis ...	5,413	5,413	
		Dandia	22	11	
		Dhura	13	2	
		Sachra	209	35	
		Koron	1,367	455	
		Bamboos	19,920	number.	
		Hides	2	"	
		Mahua	231	maunds.	
		Aonla	20	"	
		Lime	926	"	
		ABSTRACT OF THE CIRCLE.			
		Sold from Depôts.			
		Sál logs	14	692	
		Haldu logs	2	92	
		Sál sleepers	1,100	1,466	
		Sál karis	5,309	8,333	
		Haldu karis	749	1,176	
		Sein karis	24,962	40,288	
		Chir karis	5,060	8,255	
		Kukat karis	4,028	6,547	
		Tun karis	2	3	
		Ash karis	3	7	
		Sál planks	30	40	
		Haldu planks	175	101	
		Chir planks	22,252	12,323	
		Alder, sisham, and tun planks.	250	246	

FORM No. 61.— SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government Agency, during the year 1882-83—(concluded).

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		ABSTRACT OF THE CIRCLE.			
		Sold from Depôts—(concluded).			
		Sál joras	85	128	
		Chir ballis and slabs ...	66	46	
		Miscellaneous ballis ...	4,550	5,150	
		Dandia, dhura, koron, harris and yokes.	1,562	616	
		Total, timber ...	70,199	85,509	
		Firewood	53,835	maunds.	
		Charcoal	6,232	"	
		Bamboos	373,163	numbers.	
		Kiras	3,655	"	
		Kurias	47,225	"	
		Hides	7	"	
		Lime	304	maunds.	
		Sold locally.			
		Sál trees	2	13	
		Sál ballas	50	644	
		Sál timber pieces ...	21	51	
		Chir ballis and slabs ...	814	417	
		Kukat ballas, ballis and tors,	9,631	18,725	
		Khair timber pieces ...	120	225	
		Boxwood pieces ...	4	6	
		Miscellaneous karis ...	65	98	
		Miscellaneous ballis ...	7,409	8,719	
		Dandia, dhura, sachra and koron	1,611	503	
		Confiscated drift and waif wood.	114	818	
		Total, timber ...	19,841	30,219	
		Firewood	33,807	maunds.	
		Bamboos	801,318	number.	
		Kurias	125,680	"	
		Hides	37	"	
		Sitara	1	"	
		Pat	4	loads.	
		Mahua	231	maunds.	
		Aonla	20	"	
		Lime	926	"	

NAINI TAL,
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1882-83.

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Balance at commencement of the year.					
Naini Tal Division,	Chír karis	5,669	10,752	8,901	12,414
	Chír planks	3,232	1,662		
	Charcoal	6,294	maunds.	6,294	maunds.
	Lime	435	"	435	"
Bánikhet ditto ...	Firewood	4,000	maunds.	4,000	"
Kumaun ditto ...	Sál logs	598	27,911		
	Haldu logs	4	156		
	Sál karis	7,792	12,977		
	Haldu karis	1,134	1,850		
	Sein karis	4,100	6,758		
	Jámun karis	508	840		
	Dhauri karis	2	4		
	Sal planks	30	40		
	Haldu planks	255	163		
	Sal joras	10	27		
				14,433	50,726
Garhwál ditto ...	Sál karis ...	3,327	5,287		
	Sein karis	12,168	20,056		
				15,495	25,343
Gangas ditto ...	Sein karis	2,408	3,937		
	Kukat karis	4,028	6,547		
				6,436	10,484

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity	Total of each head. Cubic feet.
Removed by purchasers from depôts.				
Sál logs	14	692		
Haldu logs	2	92		
Sál sleepers	1,100	1,466		
Sál karis	5,700	8,333		
Haldu karis	749	1,176		
Sein do.	24,872	40,288		
Chír do.	5,060	8,255		
Kukat do.	4,028	6,547		
Tun do.	2	3		
Ash do.	3	7		
Sál planks	30	40		
Haldu planks	175	101		
Chír do.	22,252	12,323		
Alder, sisham and tun planks	250	246		
Sál joras	85	128		
Chír ballis and slabs	66	46		
Miscellaneous ballis	4,550	5,150		
Dandia, dhura, koron, harris and yokes ...	1,562	616		
			70,195	85,509
Firewood	55,835	maunds.	55,835	maunds
Charcoal	6,232	"	6,232	"
Bamboos	373,163	No.	373,163	No.
Kiras	3,655	"	3,655	"
Kurias	47,225	"	47,225	"
Hides	7	"	7	"
Lime	304	maunds.	304	maunds.
Sold locally.				
Sál trees	2	13		
Sál ballas	50	644		
Sal timber pieces	21	51		

Jhánsi ditto	Miscellaneous ballis	158	263	158	263
	Firewood	822	maunds.	822	maunds.
	Charcoal	654	"	654	"
	Bamboos	5,135	No.	5,135	No.
	Kiras	675	"	675	"
	Kurias	6,796	"	6,796	"
	Baskets	94	"	94	"
Lalitpur ditto	Miscellaneous ballis	67	101	67	101
	Bamboos	19,375	No.	19,375	No.
	Kurias	1,195	"	1,195	"
Bánda ditto	Miscellaneous ballis and dhura.	633	1,140	633	1,140
	Bamboos	6,434	No.	6,434	No.
	Lime	224	maunds.	224	maunds.
Total, Balance	Timber	...	...	46,123	100,471
	Firewood	...	...	4,[illegible]22	maunds.
	Charcoal	...	...	6,948	"
	Bamboos	...	...	30,944	No.
	Kiras	...	...	675	"
	Kurias	...	...	7,991	"
	Baskets	...	...	94	"
	Lime	...	...	659	maunds.
Received from the Forests in Depôts.					
Sál logs		118	9,590		
Sál sleepers		11,476	15,301		
Sál karis		21,749	35,685		
Haldu karis		415	659		
Sein karis		9,523	15,417		
Chír karis		2,941	4,653		
Jámun karis		375	594		
Tun karis		2	3		
Ash karis		7	9		
Haldu planks		6	2		
Sein planks		43	46		
Chír planks		21,105	11,[illegible]55		
Alder, sisham and tun planks		255	2[illegible]		
Sál jeras		87	13[illegible]		
Chír ballis and slabs		155	106		
Miscellaneous ballis		5,589	5,818		
Dandia, dhura, kōron, harris and yokes		2,190	408		
				76,036	100,618
Firewood		62,140	maunds.	62,140	maunds.
Charcoal		8,066	"	8,066	"
Bamboos		348,764	Nos.	348,764	Nos.
Kiras		5,700	"	5,700	"
Kurias		63,[illegible]65	"	63,[illegible]5	"
Hides		7	"	7	"
Lime		593	maunds.	593	maunds

Chír ballis and slabs	814	417		
Kikat ballas, ballis and tors	9,631	18,725		
Khair timber pieces	120	225		
Boxwood pieces	4	6		
Miscellaneous karis	65	98		
Miscellaneous ballis	7,409	8,719		
Dandia, dhura, sachra and koron	1,611	503		
Confiscated drift and waif wood	114	818		
			19,841	30,216
Firewood	33,807	maunds.	33,807	maunds.
Bamboos	801,313	No.	801,313	No.
Kurias	125,680	"	125,680	"
Hides	37	"	37	"
Pitára	1	"	1	"
Pat	4	loads.	4	loads
Mahua	231	maunds.	231	maunds.
Aonla	20	"	20	"
Lime	926	"	926	"
CONVERTED IN DEPÔTS.				
Lost or written off as useless.				
Sál karis	7	27	7	27
Used by the Department				
Sál karis	21	12		
Chír karis	78	112		
Haldu planks	86	64		
Chír ditto	426	227		
Tun ditto	5	3		
			616	418
Kurias	679	Nos.		
			679	Nos.
Charcoal	192	maunds.		
			192	maunds.
Lime	24	"		
			24	"
Transferred to other sale Depôts.				
Sál karis	3,320	5,260		
Miscellaneous ballis	736	736		
Dandia, dhura and yokes	355	46		
			4,411	6,042
Bamboos	1,000	Nos.		
			1,000	Nos.

ANNUAL FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1882-83—(concluded).

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Received from the Forests and sold locally.				
Sál trees	2	13		
Sál ballas	50	644		
Sal timber pieces	21	51		
Chír ballis and slabs	814	417		
Kukat ballas, ballis and tors	9,631	18,725		
Khair timber pieces	120	225		
Boxwood pieces	4	6		
Miscellaneous karis	65	98		
Miscellaneous ballis	7,409	8,719		
Dandia, dhura, sachra and koron	1,611	503		
Confiscated drift and waif wood	114	818	19,641	30,219
Firewood	33,807	maunds.	33,807	maunds.
Bamboos	801,313	Nos.	801,313	Nos.
Kuriss	125,680	"	125,680	"
Hides	37	"	37	"
Pitára	1	"	1	"
Pat	4	loads.	4	loads.
Mahua	231	maunds.	231	maunds.
Aonla	20	"	20	"
Lime	926	"	926	"

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Balance at close of the year.				
Naini Tal Division — Chír karis	3,472	7,038		
Naini Tal Division — Ash do.	4	2		
Naini Tal Division — Chír planks	1,659	1,057		
Naini Tal Division — Chír ballis	18	14		
Naini Tal Division — Chír slabs	71	46	5,224	8,157
Naini Tal Division — Charcoal	8,040	maunds.	8 040	maunds.
Naini Tal Division — Lime	924	"	924	"
Ránikhet ditto ... Firewood	10,466	maunds.	10,466	maunds.
Kumaun ditto ... — Sál logs	702	36,210		
Kumaun ditto ... — Haldu logs	2	64		
Kumaun ditto ... — Sál sleepers	10,376	13,835		
Kumaun ditto ... — Sál karis	24,211	40,317		
Kumaun ditto ... — Haldu karis	800	1,333		
Kumaun ditto ... — Sein karis	1,432	2,586		
Kumaun ditto ... — Jaman karis	863	1,435		
Kumaun ditto ... — Dhauri karis	2	3		
Kumaun ditto ... — Sein planks	43	46		
Kumaun ditto ... — Sál joras	12	33	38,463	96,462
Garhwál ditto ... — Sál karis	3,320	5,260		
Garhwál ditto ... — Sein karis	35	635	3,355	5,895
Ganges ditto ... Sein karis	1,770	2,659	1,770	2,659
Jhánsi ditto ... — Miscellaneous ballis ...	311	358	311	358
Jhánsi ditto ... — Firewood	661	maunds.	661	maunds.
Jhánsi ditto ... — Charcoal	550	"	550	"
Jhánsi ditto ... — Bamboos	4,291	Nos.	4,291	Nos.
Jhánsi ditto ... — Kiras	2,720	"	2,720	"
Jhánsi ditto ... — Kurias	23,252	"	23,252	"
Jhánsi ditto ... — Baskets	94	"	94	"
Lalitpur ditto ... Bamboos	1,554	Nos.	1,554	Nos.

Received by Conversion in Depôts.						
Received by transfer from sale depôts.						
Sál karis		3,320	5,260			
Miscellaneous ballis		736	736			
Dandia, dhura and yokes		355	46	4,411	6,042	
Bamboos		1,000	Nos.	1,000	Nos.	
Total ...	Timber	...	...	146,411	237,350	
	Firewood	...	...	100,769	maunds.	
	Charcoal	...	...	15,014	"	
	Bamboos	...	...	1,182,021	Nos.	
	Kiras	...	...	6,375	"	
	Kurias	...	...	196,836	"	
	Baskets	...	...	94	"	
	Hides	...	...	44	"	
	Pitára	...	...	1	No.	
	Pát	...	...	4	loads.	
	Mahua	...	...	231	maunds.	
	Aonla	...	...	20	"	
	Lime	...	...	2,178	"	

Bánda ditto ...	Miscellaneous	1,510	1,510			
	Dhura	659	82			
	Harris	17	9			
	Yokes	28	3	2,214	1,604	
	Bamboos	700	Nos.	700	Nos.	
Total, Balance ...	Timber	...	...	51,337	115,135	
	Firewood	...	...	11,127	maunds.	
	Charcoal	...	...	8,590	"	
	Bamboos	...	...	6,545	Nos.	
	Kiras	...	...	2,720	"	
	Kurias	...	...	13,252	"	
	Baskets	...	...	94	"	
	Lime	...	...	924	maunds.	
Total ...	Timber	...	...	146,411	237,350	
	Firewood	...	...	100,769	maunds.	
	Charcoal	...	...	15,014	"	
	Bamboos	...	...	1,182,021	Nos.	
	Kiras	...	...	6,375	"	
	Kurias	...	...	196,836	"	
	Baskets	...	...	94	"	
	Hides	...	...	44	"	
	Pitára	...	...	1	No	
	Pát	...	...	4	loads.	
	Mahua	...	...	231	maunds.	
	Aonla	...	...	20		
	Lime	...	...	2,178		

Naini Tal:
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 63.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture, during the year 1882-83.

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
		c. ft.	Rs.	Rs.	
Naini Tal ...	Chir poles	14	3	3	
	Miscellaneous poles for chapars, &c.	674	61	61	
	Alder	93	12	12	
	Gethi	10	4	4	
	Total, timber ...	791	80	80	
	Firewood	mds. 500	63	63	
	Firewood tickets 3,252 ...	mds. 61,952	1,626	1,626	
	Total, firewood ...	62,452	1,689	1,689	
	Ghingaru Sticks	...	20	20	
	Ringal head loads ...	171	21	21	
	Bamboos	No. 40	1	1	
	Grazing	...	226	226	
	Other minor produce ...	...	88	88	
	Total, Revenue under II. ...	...	2,125	2,125	
Ránikhet ...	Chir	8,288	609	609	
	Charpoys	No. 199	12	12	
	Firewood for squatters ...	mds. 2,000	135	135	
	Charcoal	mds. 521	98	98	
	Grazing	...	474	474	
	Other minor produce ...	...	616	616	
	Total, Revenue under II. ...	...	1,944	1,944	
Kumaun ...	Sál logs	113,031	56,516	56,516	
	Haldu "	79,381	14,903	14,903	
	Sein "	5,536	1,038	1,038	
	Jaman "	2,295	430	430	
	Shisham "	6,087	2,282	2,282	
	Tun "	1,387	520	520	
	Sandan "	685	257	257	
	Khair "	8,759	3,285	3,285	
	Total, Logs ...	217,161	79,231	79,231	
	Firewood	mds. 32,340	4,042	4,042	
	Bamboos	No. 2,233,265	9,480	9,480	
	Grazing	...	8,025	8,025	
	Other minor produce ...	...	13,935	13,935	
	Total, Revenue under II. ...	...	1,14,713	1,14,713	
Garhwál ...	Sál logs	123,651	72,004	72,004	
	Sein "	6,552	1,779	1,779	
	Shisham "	1,011	316	316	
	Tun "	480	150	150	
	Sandan "	9,582	2,995	2,995	
	Katrukh "	30,302	1,479	1,479	
	Khair "	4,652	2,326	2,326	
	Ebony "	47	94	94	
	Total, Logs ...	176,277	81,143	81,143	

FORM No. 63.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture, during the year 1882-83.—(continued.)

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
	Firewood	mds. 71,247	1,262	1,262	
	Charcoal	,, 20	4	4	
	Bamboos	No. 7,003,768	23,859	23,859	
	Grazing	...	2,366	2,366	
	Other minor produce ...	...	4,999	4,999	
	Total, Revenue under II. ...	...	1,13,633	1,13,633	
Ganges ...	Sál logs	c. ft. 11,984	4,880	4,880	
	Sein ,, ...	,, 8,292	1,733	1,733	
	Shisham ,, ...	,, 1,454	448	448	
	Kukat ,, ...	,, 2,944	514	514	
	Deodar ,, ...	,, 794	173	173	
	Simal ,, ...	,, 2,760	345	345	
	Tun ,, ...	,, 52	19	19	
	Sandan ,, ...	,, 2,475	773	773	
	Kolai ,, ...	,, 32	2	2	
	Khair ,, ...	,, 4,322	2,313	2,313	
	Total, logs ...	c. ft. 35,089	11,200	11,200	
	Firewood	mds. 97,921	1,854	1,854	
	Bamboos	No 9,585,068	35,572	35,572	
	Grazing	...	1,821	1,821	
	Other minor produce ...	...	1,859	1,859	
	Total, Revenue under II. ...	..	52,306	52,306	
Jhánsi ...	Miscellaneous ballis ...	96	10	10	
	Firewood	mds. 1,123	29	29	
	Do. by contract ...	...	229	229	
	Charcoal	mds. 1,516	506	506	
	Grazing	.	2,599	2,599	
	Other minor produce* ...	...	489	489	* Includes 66,265 kurias, the rest of the minor produce consists of articles too insignificant and numerous to detail.
	Total, Revenue under II. ...	...	3,862	3,862	
Lalitpur ...	Miscellaneous ballis ...	c. ft. 10,894	481	481	
	Kurias	No. 234,350	586	586	
	Contract for making combs ...	..	15	15	
	Total, Timber ...	...	1,082	1,082	
	Firewood	mds. 9,680	121	121	
	Bamboos	No. 302,647	789	789	
	Grazing	...	3,269	3,269	
	Other minor produce ...	...	1,362	1,362	
	Total, Revenue under II. ..	...	6,623	6,623	
Bánda ...	Yokes and harris, &c., by contract.	...	88	88	
	Firewood by contract ...	...	360	360	
	Charcoal do. ...	...	9	9	
	Bamboos by contract ...	...	67	67	
	Grazing by contract ...	...	775	775	
	Other minor produce ...	...	2,386	2,386	
	Total, Revenue under II. ...	...	3,685	3,685	
	Total, Revenue of the Circle under II.	...	2,98,891	2,98,891	

FORM No. 63.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture, during the year 1882-83—(concluded).

Division	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year	Remarks.
	ABSTRACT OF THE CIRCLE.				
		c ft.	Rs.	Rs.	
	Sál logs	248,666	1,33,400	1,33 400	
	Haldu ,, ...	79,381	14,903	14,903	
	Sein ,, ...	20,380	4,550	4,550	
	Chír ,, ...	8,302	612	612	
	Jaman ,, ...	2,295	430	430	
	Shisham and Kukat logs ...	11,476	3,560	3,560	
	Tun ,, ...	1,919	689	689	
	Semal ,, ...	2,760	345	345	
	Deodar ,, ...	794	173	173	
	Sandan ,, ...	12,742	4,025	4,025	
	Katrukh ,, ...	30,302	1,479	1,479	
	Kolai ,, ...	32	2	2	
	Alder ,, ...	93	12	12	
	Gethi ,, ...	10	4	4	
	Khair ,, ...	17,733	7,924	7,924	
	Ebony ,, ...	47	94	94	
	Miscellaneous poles for chapars, &c.	674	61	61	
	Miscellaneous ballis ...	10,990	491	491	
	Yokes and harris by contract,	...	88	88	
	Contract for making combs ...	...	15	15	
	Total, Timber ...	c ft. 448,596	1,72,857	1,72,857	
	Charpoys	No. 199	12	12	
	Kurias	No. 234,350	586	586	
	Firewood	mds. 2,14,811	7,506	7,506	
	,, Tickets 3,252 ...	mds. 61,952	1,626	1,626	
	,, by contract ...	...	589	589	
	Charcoal	mds. 2,057	608	608	
	,, by contract ...	...	9	9	
	Ghingaru sticks by contract ...	...	20	20	
	Bamboos*	19,124,788	69,701	69,701	
	,, by contract ...	...	67	67	
	Ringals head loads ...	171	21	21	
	Grazing	...	19,555	19,555	
	Other minor produce* ...	...	25,734	25,734	
	Total, Revenue of the Circle under II.	...	2 98,891	2,98,891	

* Includes 66,265 kurias, the rest of the minor produce consists of articles too insignificant and numerous to detail.

NAINI TAL:
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 64.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments from Depôt during the year 1882-83.

Name of Department.	Particulars of supplies.	Amount supplied.	Rate.		Amount of revenue.			Cost to Forest Department.			Comparison of revenue and expenditure		Remarks.
			At	Per	Due.	Received.	Outstanding.	Timber expenses under A.I.	Quota of all other expenditure chargeable against timber, &c.	Total.	Surplus.	Deficit.	
			Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Public Works Department, Provincial Works, Kumaun Division.	Sál karis ...	8—13	1 10 0	Cubic foot	22 0 0	22 0 0	...	26 0 0	19 0 0	45 0 0	34 0 0	...	
	Haldu logs ...	2—92	0 10 0	Ditto ...	57 0 0	57 0 0	...						
Public Works Department, Provincial Works, Naini Tal Sub-Division.	Chír planks ...	8—10× 6×1¼	35 0 0	100	3 0 0	279 0 0	...	161 0 0	15 0 0	166 0 0	113 0 0	...	
	Ditto ...	50—10×12× 8	50 0 0	100	25 0 0								
	Selected planks ...	80—10×12×1	112 0 0	100	89 0 0								
	Chír planks ...	30—10×12×1	56 0 0	100	17 0 0								
	Ditto ...	20—12× 6×1½	0 8 0	Each ...	10 0 0								
	Ditto ...	20—12×12×1½	90 0 0	100	18 0 0								
	Ditto ...	74—12×12×2	112½ 0 0	100	83 0 0								
	Chír karis ...	6—12×13×7	5 11 0	Each ...	34 0 0								
Public Works Department, Military Works, Naini Tal Sub-Division.	Chír planks ...	120—10× 6×2	42 0 0	100	50 0 0	273 0 0	...	202 0 0	18 0 0	220 0 0	53 0 0	...	
	Ditto ...	360—10×12×1	56 0 0	100	202 0 0								
	Chír karis ...	26—10× 6×4	0 13 0	Each ...	21 0 0								
Public Works Department, Northern Division, Ganges Canal.	Kukat ballas ...	1,176=7,250	40 0 0	Score ...	2,352 0 0	5,345 0 0	...	2,457 0 0	500 0 0	2,957 0 0	2,388 0 0	...	
	" ballis ...	2,106=3,160	10 0 0	Ditto ...	1,053 0 0								
	" tors ...	6,349=8,315	8 0 0	Ditto ...	2,540 0 0								

FORM No. 64.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments from Depôt during the year 1882-83—(concluded).

Name of Department.	Particulars of supplies.	Amount supplied.	Rate.		Amount of revenue.			Cost to Forest Department.			Comparison of revenue and expenditure.		Remarks.
			At	Per	Due.	Received.	Outstanding.	Timber expenses under A.I.	Quota of all other expenditure chargeable against timber, &c.	Total.	Surplus.	Deficit.	
			Rs a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Telegraph Department.	Chir karis ...	25—16 × 5 × 4	1 4 0	Each ...	31 0 0	31 0 0	...	21 0 0	2 0 0	23 0 0	8 0 0	...	
Commissariat Department, Naini Tal.	Firewood ...	Mds. 33,245	38 0 0	Mds. 100	12,633 0 0	12,633 0 0	...	7,708 0 0	1,188 0 0	8,896 0 0	3,737 0 0	...	
Commissariat Department, Ránikhet.	Firewood ...	Mds. 53,838	36 8 0	Mds. 100	19,651 0 0	19,651 0 0	...	15,269 0 0	1,380 0 0	16,649 0 0	3,002 0 0	...	
Government Press, North-Western Provinces and Oudh.	Boxwood ...	4 = 6	2 3 11	Cubic foot.	13 0 0	*13 0 0	...	13 0 0	...	13 0 0	...	...	* Supplied at cost price.
		Total ...	...	...	38,904 0 0	38,904 0 0	...	25,847 0 0	3,122 0 0	28,969 0 0	9,935 0 0	...	
								Deduct surplus (or deficit)		... ...	...	...	
								Balance for (or against) the Department		... ...	9,935 0 0	...	

NAINI TAL
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 65—(SUGGESTED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1882-83.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.
Timber.			Rs.			Rs.	Rs.	
Sál logs	598	27,911	41,868	702	36,810	55,215	...	...
Haldu logs	4	156	78	2	64	32	...	...
Sál sleepers	...	...	...	10,376	13,835	10,376	...	...
Sál karis	11,119	18,264	23,076	27,531	45,577	44,919	...	...
Haldu karis	1,184	1,850	925	800	1,333	666	...	...
Sein karis	18,676	30,751	17,075	3,237	5,980	3,661	...	...
Chír karis	5,669	10,752	6,720	3,472	7,038	4,414	...	...
Jamun karis	598	840	420	883	1,485	538	...	...
Dhauri karis... ...	2	4	2	2	3	2	...	...
Kukat karis	4,028	6,547	1,964	...	...	...	...	...
Ash karis	...	...	...	4	2	2	...	...
Sál planks	30	40	60	...	...	...	...	...
Haldu planks... ...	255	163	81	...	...	...	...	...
Sein planks	...	...	...	43	46	16	...	...
Chír planks	3,232	1,662	1,039	1,659	1,057	665	...	...
Sál joras	10	27	47	12	33	40	...	...
Chír ballis	...	...	...	18	14	4	...	...
Miscellaneous ballis ...	782	1,154	91	1,821	1,668	218	...	...
Chír slabs	...	...	...	71	46	13	...	...
Dhuras	76	350	7	659	82	82	...	...
Harris	...	...	...	17	9	2	...	...
Yokos	...	...	...	28	3	4	...	...
Total, timber ...	46,123	100,471	93,152	51,337	115,135	1,20,669	27,416	.
Firewood and charcoal.								
Firewood	4,822	maunds	1,574	11,127	...	3,900	maunds.	...
Charcoal	6,948	,,	6,568	8,500	...	8,258	,,	...
Bamboos	30,944	number.	224	6,745	...	60	number.	...
Kuras	675	,,	42	2,720	...	140	,,	...
Kurias	7,991	,,	18	28,212	...	40	,,	...
Baskets	94	,,	3	94	...	3	,,	...
Lime	659	maunds	353	924	...	461	maunds	...
Total, fuel, &c. ...	...	..	8,782	...		12,863	4,081	...
Total ...	...	...	1,02,235	...	...	1,33,732	31,497	...

Net difference in favor of the year, Rs. 31 497.

* NOTE.—A slight error here last year, now corrected.

FORM No. 65.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Abstract showing the value of Live and Dead Stock for the year 1882-83.

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value	
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.
Live Stock.		Rs.		Rs.	Rs.	Rs.
Elephants	9	14,500	7	11,200	...	...
Bullocks	32	523	41	794	...	...
Total, Live stock ...	41	15,023	48	11,994	...	3,029
Dead Stock						
Buildings	60	56,792	63	63,076	...	...
Sheds	2	16	2	16	...	...
Tools and plants ...	27,791	20,972	21,629	22,013	...	...
Carts	17	331	20	436	...	...
Almirah	1	70	3	120	...	...
Gun-powder barrels ...	5	429	5	429	...	...
Ditto loose lbs.	84	84	58	58	...	...
Slow match barrels ...	3	260	3	260	...	...
Miscellaneous qrs.	6	*Nil.*	6	...	...	...
Ditto lbs.	9	*Nil.*	9	...	...	...
Total, Dead stock ...	27,978	78,954	21,798	86,408	7,454	..
Total ...	...	93,977	...	98,402	7,454	3,029

Net difference in favor of the year, Rs 4,425.

NAINI TAL
The 14th July, 1883.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

OUDH CIRCLE REPORT

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OUDH CIRCLE.

N.-W. PROVINCES AND OUDH.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION
FOR THE YEAR ENDING 31st MARCH, 1883.

By Captain E. S. Wood, Conservator of Forests, Oudh Circle.

INTRODUCTION.

1. *Conservator's inspection of forests.*—I visited all the divisions in the Oudh Circle between November, 1882 and May, 1883: starting from Bahrámghát, I saw the Akonah forests of the Kapurthálá State (district Bahraich) with Mr. Rebsch, in which demarcation had been made by him, and some experiments conducted to ascertain the possibility of reproduction from stools and seedlings, which had taken place since my last visit; I then inspected the Nawabganj forests in the south of Gonda; crossing through Basti to the south of Gorakhpur, I visited the forests with Mr. Campbell, leaving them at the north; crossed through Basti to the Ará nálá, and inspected the forest divisions from east to west, *viz.*, Gonda, Bahraich, Kheri (trans-Sarda), Bhira, and Pilibhít; on the 5th April I proceeded to Bahrámghát, to look after timber operations and tile-making, which I could not do on the march, arriving at Naini Tal on the 5th May.

2. *Inspection of offices.*—I inspected all the offices and found the cash balances correct and the books properly kept up; and reported the same to Government and to the Assistant Comptroller-General (Forests).

3. *System of working through and with district officers.*—The system of working through and with district officers has again been a success, and I now think that qualified forest officers should be vested with magisterial powers, as they would be controlled by the district officers.

4. *The year* 1882-83.—The year was one of great activity, extensive sleeper operations having been undertaken, though a great deal of expense has been incurred, this has been met by a part payment by the State Railway Department, so that, though the profits of the operations have not accrued in the year, the surplus estimated in the regular budget has been nearly obtained, notwithstanding that the amount of money received from purchasers has been affected, partly by the timber that would have been sold to them having been converted into sleepers, and partly by the officers having their time greatly taken up with the sleeper operations; the latter cause also prevented more works of improvement being undertaken.

5. *New form of this report.*—This report is written in the new form prescribed by Government; in giving divisional detail the former custom of mentioning divisions from west to east has been followed: when no division is mentioned, it may be understood that there is nothing of interest to report in the division not mentioned. The orders of Government arrived too late for the divisional reports, with the exception of that of Gorakhpur, which was re-arranged, to be sent in in the new form, which has considerably delayed the writing of this report.

CHAPTER I.

AREA AND BOUNDARIES.

6. *Area of the circle.*—The area remains the same as last year, *viz.*, 1,090 square miles; I have not been able to have the area ascertained with exactness as I had hoped.

7. *Probable changes of area in divisions.*—(*a*) In Bhira the notification only requires to be issued in the Gazette* to bring the lands, exchanged with Mr. Hearsey for the Hardoi grants, into the area of the reserved forests : it is probable that during the present year some of the grants on the Katna river (about 15 square miles) which are not required for cultivation by the Deputy Commissioner will be handed back to the forest department, and can then be notified as reserved forests. (*b*) In Kheri (trans-Sarda) the suit of the raja of Khairagarh for certain lands lying within forest limits has been heard by the Judge of Sitapur, and I believe judgment has been given against him and the case has been allowed to be brought up only to be lost by him again. (*c*) In Bahraich certain proposals of a zamindár, Hira Singh, for an exchange of lands are before the Deputy Commissioner and myself ; they are for him to give up certain village lands either wholly or partially surrounded by Government forests for outlying strips of Government forests containing few (if any) trees of the valuable species, which will at the same time give him better soil, better protection to his crops, make his estate more compact and valuable, and benefit the forest department by shortening the boundary, by increasing the grazing area, and by removing villagers (who cannot make cultivation pay) from inside the forest boundary. (*d*) In Gorakhpur the grass lands referred to in para. 6 of last year's report have not been handed over to the forest department ; but the Collector informs me they will probably be so on the 1st of October next, the commencement of the grazing season. There is really only one large plot of land, that of Sakhwi, about which there is any difficulty, and the Collector is making arrangements with regard to it, though the forest department has been in possession for the last two years and has planted it up with sissu. The grass lands just referred to contain about 11,358 acres ; but besides these lands (already notified in the Gazette) there are some 19,284 acres of waste lands in the hands of the Collector, managed by kanungos and tahsil chaprasis. To protect the sál forests from fires and thus get the highest yield from them, it will be necessary to prevent grazing in them : and it seems to me that Government should before it is too late manage the waste lands through the forest officer under the Collector, so that no more valuable tree forest should be alienated and sacrificed, and that a proper amount of grazing land should be reserved for the benefit of the Gorakhpur district and the adjoining districts, thus lessening any hardship that might be inflicted on the people by closing the tree forests for grazing in ordinary years. Mr. Nicholson in his report to the Collector, dated 30th March, 1883, has gone into the subject and made some interesting remarks. The want of grazing grounds has already been felt in certain parts of the North-Western Provinces (see establishment of fuel and fodder reserves published in the *North-Western Provinces and Oudh Gazette*, Part VI., pages 153-166, dated 1st March, 1883). In the northern parts of the district there are thousands of acres of village lands lying untilled, and it seems impolitic to give up grazing lands for cultivation whilst this remains the case. The close vicinity of private forests to the Government forests is a cause of great anxiety to the forest officer in charge, both as regards fire conservancy and police arrangements, and I believe, if a full investigation were to be made, it would be ascertained that many individuals are in possession of forest on Government land to which they are not legally or equitably entitled, and I consider that Government should reserve such forests wherever possible.

8. *Circle boundaries.*—The progress made in demarcating and ditching forest boundaries is shown below :—

Division	Miles demarcated.	Miles new ditching.		Miles broad boundary cleared.	Number of posts erected.	Miles of Nipal broad boundary cleared.	
		Miles.	fur			Miles.	fur
Pílibhit	None required,	23	4½	...	...	...	
Bhira (sub-division)	Ditto ...	20	0	...	...	. .	
Kheri (trans-Sarda)	Ditto ...	...		...	...	24	6
Bahraich	Ditto ...	41	0	...	314	35	0
Gonda	Ditto	...		...	...	...	
Gorakhpur	70	...		...	...	..	
1882-83 ...	70	84	4½	...	314	59	6
1881-82 ...	About 2	101	2	27	1,509	...	

*Sent to Government with this office No. $\frac{L.\ G.}{39}$ of 30th July, 1883.

I hope in next year's report to be able to give a detailed statement of the state of the boundaries. (*a*) In Pilibhít the forests are nearly all marked off with a 3-feet ditch or boundary roads. (*b*) In Bhira ditching is being done at the rate of 20 miles a year. (*c*) In Kheri all the outside boundaries are completed, the inner ones waiting till the Khairigarh case is decided. (*d*) and (*e*) In Bahraich and north Gonda the boundaries are complete; in south Gonda ditching is required between the masonry pillars where the boundaries are not marked by roads. (*f*) In Gorakhpur the demarcation is only now taking place.

9. *Division boundaries.*—(*a*) In Pilibhit the 3 feet ditching was continued; it is hoped that it will be completed this year. The Commissioner of Rohilkhand has approved of the demarcation of grants 2, 16 and 17 (referred to in para. 70 of last year's report), as laid down by the Collector and the forest officer. (*b*) In Bhira the 3-feet ditching was continued for 20 miles. (*c*) In Bahraich 41 miles of 3-feet ditching was done in sections IV. and VI., costing Rs. 1,019, thus completing the boundary laid down by Mr. Nicholson. Permanent sál posts only require to be erected in the Motipur sub-division. (*d*) In Gonda, Mr. Rebsch having been away at Akonah part of the year, not much was done, but a commencement was made to clear a 15-feet road on the outer boundary of the Moneypur block in the Nawabganj forest; the progress made will be reported on in 1883-84. This clearing is required, as there is forest alongside and the graziers make an excuse of not knowing the boundary when they are caught illicitly grazing their cattle within forest limits. (*e*) In Gorakhpur Mr. Nicholson, Extra Assistant Commissioner on special duty, only commenced work in the latter part of January, leaving off in the end of March. It was decided that he should commence work where the work was easy, where it was known there would be few disputes, and where the demarcation was not complicated by the grass land question. He thus made rapid progress, demarcating west Lehra 36 miles, Bhari Baisi 15 miles, Bhari Babun 10 miles, and Bhelumpur 9 miles, total 70 miles. As he demarcated in the dry weather, when the ground was hard, the ditching did not immediately follow, but will be done during, and immediately after, the rainy season, when the earth is soft and work can be done quicker, better, and cheaper; deep marks, however, were made at the angles with direction guides cut deep in the soil, which will enable the forest department to work with certainty. The whole cost of ditching and demarcating (including for the first time the demarcating officer's pay) will be borne by the forest department.

10. *Nepal boundary.*—Besides the regular marking off the boundaries between the forests and the lands of zamindars, Mr. Allan in Kheri and Mr. Battie in Bahraich cleared 24 and 35¾ miles respectively of the Nepal boundary originally cut by the forest department for the district officers; the expense of the clearing was debited to imperial funds; the work that remains to be done is principally in the hilly parts of Bahraich and Gonda, and will probably be completed during 1883-84.

CHAPTER II.

SURVEYS, WORKING PLANS, AND ANNUAL PLANS OF OPERATIONS.

11. *Valuation surveys; circle.*—The only surveys made were the measurements of sál trees in the regular blocks and certain selected trees in Kheri; the growth on the whole seems to have been slower than that of former years.

12. *Valuation surveys; divisional.*—(*a*) In Pilibhít the growth of young coppice trees has been rapid, 1½″ increase of girth (and over) in dominant trees. (*b*) In Bhira the increase is a little over ·5″ in girth in the year, little less than that of 1881-82. (*c*) In Kheri, the measurements of the large selected trees were affected by the outer bark having in many cases cracked off (a sign, however, of rapid growth), and this has influenced the measurements in the ¼-acre blocks; in the 2-acre block however, notwithstanding this circumstance, 169 healthy trees were measured, and had increased ·8″ against nearly 1″ last year. (*d*) In Bahraich, in the Nishangarah sub-division, the growth has been a little under the normal growth (·5″), but the growth in Bhing

and Sohelwa, where the sál has been hardened by the trampling of cattle, was even slower, being ·4" and ·3" respectively.

13. *Working plans.*—The only regular working plan is in Kheri (trans-Sarda), where the usual number of sál trees (2,500), selected for their soundness and straightness, were felled; in addition to these, crooked and unsound sál trees were felled for sleepers.

14. *Plans of operations.*—The plans of operation, roughly sketched beforehand by the divisional officers in the Budget in September, 1881, were forwarded to me through District Officers, and by me submitted to Government through Commissioners and have been worked up to as far as was practicable. The progress will be shown in divisional detail, the old system of reporting of divisions separately having been done away with by recent orders. An abstract of the working plans will be found in appendix (D) of this report.

CHAPTER III.

PROTECTION AND IMPROVEMENTS.

(1)—Establishments.

15. The charges during the year were as below :—

Charges.	Officer in charge.	Remarks.
Oudh Circle.	Captain Wood	Whole year.
Pilibhit Division ...	Mr. Ponsonby	Whole year (camp 164 days).
Bhira ,Kheri (sub-division).	Ditto	Whole year (camp 62 days).
Kheri (trans-Sarda), two sub-divisions).	Mr. Allan	Whole year, assisted by Mr. Battie from 1st April to end of July, 1882.
Bahramghát	Babu Kanhya Lal ...	Whole year.
Bahraich, two sub-divisions,	Mr. Pinder	1st April to end of July, Babu Kanhya Lal in charge of office August to September 21st.
	Mr. Battie	Mr. Battie, from September 22nd to end of year.
Gonda division	Mr. Rebsch	Mr. Campbell carrying on office work 1st July to 21st September, when Mr. Rebsch was at Forest School at Dehra.
Gorakhpur	Mr. Campbell	Whole year.

Mr. Dansey was on leave during the whole year. Mr. Pinder went to Europe on sick leave in August, not returning during the year. Messrs. Rebsch and Battie attended the forest school from the commencement of July to near the end of September. Mr. Rebsch, whilst holding charge of his own division, demarcated and experimented in the Akonah forests of the Kapurthálá state from the commencement of the year till he went to Dehra in the commencement of July, and again from his return from Dehra till the 15th November.

16. *Dehra School.*—As above mentioned, Messrs. Rebsch and Battie attended the forest school at Dehra; and Babu Raghunath Pathak, likely head clerk of the Gorakhpur division, who had formerly done forest work and is now a ranger, attended the whole course, returning to work in the forests till June of this year; he entered the forests as an apprentice in 1874, but there being no vacancy for him, he had to be entertained on the temporary establishment till a place could be provided for him. The terms of admission to the school are very hard on the Oudh subordinates, only one man on the forest establishment knowing English sufficiently well to enter the school, and he is on the temporary establishment. It will be necessary to enlist young men who have the necessary qualifications, and who will then have to serve a forest apprenticeship in the temporary establishment; proposals on this subject will shortly be

forwarded, as eventually more rangers will probably be required, and after the 1st April, 1885, except under exceptional circumstances, only Dehra-trained men can fill these appointments.

17. *Present establishments.*—We are working with the establishment sanctioned by Government of India in its No. 791F. of 17th July, 1875; since that time Pilibhit, which was under the Collector with an inadequate establishment, has been put regularly under the forest department, additions have been made in the forest area in Gonda, and the Gorakhpur division, an old North-Western Province charge, has been added to the Oudh Circle. I have delayed making proposals till I have seen what revised establishments are to be allowed to the Central Circle, so as to make my proposals in accordance with the views approved of by the Local Government and the Government of India; in the meantime the present establishment is being aided by a temporary establishment.

(2)—General Protection and Breaches of the Forest Law.

18. *General protection; damage done by cattle trampling.*—Considering the extent of the forests and the few care-takers, the forests have had little intentional damage done to them; this damage has been principally caused by incendiaries; the lopping that takes place is generally of inferior trees. But it is not so much the intentional damage that causes the improvement of the forests in the Oudh Circle (except in areas protected from cattle and fires) to be so slow as the damage done by fires and the browsing and trampling of cattle; cattle, apparently innocently grazing, are killing thousands of seedlings among the herbage by browsing, and are preventing seeds from germinating by the continual trampling of the soil. Each foot of a cow covers 2″×2″ or 4 square inches; her weight is about 4 maunds or 320lb. on 16 square inches (for her four feet) or 20lb. to the square inch. In the north Gonda tree forests, which have an area of 130 square miles, over 40,000 cattle graze; many of the cattle graze in the forests nearly every day of the year; they enter the forests in the morning and leave a little before sunset. If we assume that the cattle graze every day in the year, that they are walking and grazing for 8 hours in the day (they seldom lie down in the forests, chewing the cud in their own homes at night, it taking generally all their time to fill their stomachs), and they get over 8 miles of ground going and returning, and on the average take a step of 2 feet, each cow will trample every inch of 19·681 acres in the year, or with her calf (which is not counted) fully 20 acres. From the following figures it will be seen that 41,600 (more than that number actually grazed in the past year) would be able to trample over every inch of the Gonda forests 10 times in the year. Let A. be the number of acres in the forests $=130\times640=83,200$; B. be the number of cattle $=41,600$; C. the number of acres trampled by each cow in the year $=20$: it follows that the number of times each square inch is pressed by the weight of 20lb. is $\frac{B.\times C.}{A.}=\frac{41,600\times20}{83,200}$, or 10 times. Even if the cattle grazed only half the year, they could trample over every square inch of the forests 5 times and more, for a certain area is taken up with the stumps of trees. The cattle go on paths for part of the distance, which must thus be trampled over thousands of times by cattle; but allowing half the time spent in the forests for grazing off the paths, every inch of accessible soil not covered by trees or shrubs might be trampled over several times in the year. No wonder that forest officers, when endeavouring to obtain natural reproduction in the forests, are desirous to obtain the exclusion of cattle, which not only trample the soil, but eat both seed and seedlings.

In the closed portions much more grass is obtained per acre by cutting than cattle possibly can graze per acre from open forests, and it will perhaps be a question for the future whether the grass should not be cut instead of being grazed over in the tree forests, as I believe more than double the amount of grass could be obtained in this manner with less detriment to the tree forests; in the meantime we must make the most of the grazing in the legitimate grazing grounds, *viz.*, the grass lands in the vicinity of the forests.

19. *Breaches of forest law.*—The results of prosecutions for breaches of forest rules are as below:—

Division.	Prosecutions.		Convictions.		Acquittals.		Pending.
	Old cases.	New cases.	Cases.	Persons.	Cases.	Persons.	
Pilibhit	...	3	3	7	...	...	...
Bhira (sub-division)	...	1	1	1	...	...	...
Kheri (trans-Sarda)	1	5	5	14	1	5	...
Bahramghât	...	...	...	...	...	...	...
Bahraich	1	31	27	47	4	4	1
Gonda	2	18	15	23	4	18	1
Gorakhpur	...	5	4	15	1	1	...
1882-83 ...	4	63	55	107	10	28	2
1881-82 ..	...	71	54	127	14	21	...

Of the 63 new cases, 3 were for damaging the forests by fire, 42 stealing forest produce, 13 for illicit grazing, and 5 for minor offences.

The number of cases is nearly the same as in 1881-82, as shown above. In Gonda there has been, I consider, a miscarriage of justice owing to the native Magistrates letting off, if possible with very light punishment, people who commit forest offences; in one of the above cases of acquittal the offender was let off because the native Magistrate required it to be *proved* that the owner of the cattle *willingly* let his cattle trespass; the matter was referred to the Judicial Commissioner, and I believe the Deputy Commissioner is not going to allow native Magistrates to try forest cases for the present.

20. *Compounding offences.*—There are only three cases of compounding; these were in the Gonda district, where there were three cases and five persons, two of the cases being for unauthorized felling; the sum of Rs. 26-8-0 was taken.

(3)—Forest Fires.

21. *Fire-conservancy; circle.*—The year was particularly favourable for fire-conservancy; the early part of the season was dry, which allowed officers to completely isolate the protected blocks, by burning the grass round them, as also the dangerous grass patches (except in Pilibhit, where the grass and tree forest is so much mixed up) inside the forests; heavy showers fell occasionally from January to March, which kept the forest damp and made the new grass outside the forest a mass of verdure impassable by fires.

The area attempted was about 184,064 acres, of which 182,187 acres were protected, costing Rs. 9,012-4-7; this gives 99·52 per cent. of area protected; besides this area under regular fire-conservancy large areas, particularly in Gonda, were protected from fire.

There were eight fires; two caused in burning the boundaries, three by carelessness of villagers, one by carelessness of charcoal-burners, one probably by an incendiary, and one the cause of which could not be ascertained.

The following statement shows the area attempted and protected and cost in the past and former years:—

Division.	Area attempted.	Area protected.	Cost.		
	Acres.	Acres.	Rs.	a.	p.
Pilibhit	20,588	19,788	1,469	7	5
Bhira (sub-division	15,712	15,562	1,875	15	5
Kheri (trans-Sarda)	42,130	42,130	2,518	13	4
Bahraich	32,904	31,200	1,984	6	10
Gorakhpur	73,540	73,415	1,765	9	7
1882-83 ...	184,064	182,187	9,012	4	7
1881-82 ..	182,190	149,530	9,166	0	0

2 *Fire-conservancy; divisional.*—(*a*) In Pilibhit there were four fires; the largest could not be traced; of the three small fires one was caused by villagers, one by the carelessness of charcoal-burners, and one in burning the boundary.

(*b*) In Bhira a small fire occurred in burning the boundary.

(*c*) Kheri has been most successfully protected, notwithstanding there have been more carters and sawyers in the forests than there have been for many years previous. Mr. Allan took great pains to succeed and succeeded, though till the last few days in the season he had not the help of an European assistant.

(*d*) Bahraich has also been very successful: one fire was probably the work of an incendiary who fired the forests on both sides the road near Ponsonbyganj in May, 1883; it is supposed to have been the work of a banjara who lives in Nepal, and threatened to be revenged for his gun having been taken away when shooting in a closed block; the matter has been reported to the Resident in Nepal, who has taken the matter up and reported the same to the Darbar.

(*e*) In Gonda much of the forests were saved this year, though they have not yet come under regular fire-conservancy; but till in the northern forests we close certain parts against cattle, fire-conservancy will be very easy, the cattle at present leaving but little to burn or seedlings to be damaged by fire, except in parts favoured by distance from the villages, richness of soil, &c.

(*f*) In Gorakhpur there were but two small fires, one caused either by Domes leaving a fire in their encampment, or by Ahirs; the second was caused accidentally by people returning from a large fair.

(4)—Grazing and Fencing.

23. *Number of cattle grazing.*—The amount received from grazing dues in the year was Rs. 35,166-12-11; it was nearly Rs. 33,000 in 1881-82. As the cost per head of cattle is 2 annas to the privileged villagers, 3 annas to outsiders, less than 2 annas to the Maharaja of Balrampur's tenantry, and free to the inhabitants of pargana Puranpur (district Pilibhit), this amount shows that about 250,000 head of cattle were paid for. Buffaloes pay a higher rate than cows, but to counterbalance the less number included in the higher rate there are many young calves that are not counted, and there may be some cattle that do not pay; so that I do not think it can be estimated that less cattle than the number given above graze in the forests. The area of the forests is 1,090 square miles; it may be assumed that about 290 square miles or more are closed, so that the 250,000 cattle graze in less than 800 square miles, or (say) 500,000 acres; this gives one head for two acres, but the grazing is practically limited to much less than 800 square miles (there being many places in which there is no grass or herbage under the large trees where they are dense), so that one cow or ox has less than two acres to graze on; the area per head is more probably one or 1½ acre.

Fortunately in some forests we have large open areas covered with dense grass, in which large numbers of cattle are grazed; but in the forests which are not so favoured the cattle must necessarily do much harm.

24. *Damage done by cattle.*—In para. 18 of this report I have shown what cattle do in the way of trampling in the north Gonda forests; in these forests there is very little open grass land, and not much grass in the tree forests, so that the cattle have to eat whatever they can get—grass, living leaves, seedlings, twigs and small branches, also fallen fruits, dead leaves and seeds—and wander about for miles and miles to pick up, after a hard day's work, enough to fill their stomachs.

It seems therefore imperative that Government should, for the welfare of the country, retain in its own hands every acre it can of grass lands, for if we close a larger area for the production of timber, and the present grass lands outside the forest boundary are brought under the plough, the cattle of the adjoining districts will have a less area to graze over. It is the low lands that are often covered with water,

either by rain-water from the highlands or by the rising of streams that are the legitimate grazing grounds; for here the soil is constantly being renovated, whereas in the uplands the soil must gradually detoriorate where much is grazed off and but little returned to it in the shape of manure, most of the manure being dropped in the villages where the cattle are stalled at night. Being forced to supply grazing, the forests can hardly be expected for some time to give the large yield of timber per acre that European and properly managed forests do; I think we should be judged by the area protected against grazing and fires, but eventually I believe, even with half our forests open to grazing, we shall be able to show a good return as compared with European forests, as I believe the growth is fully twice as quick in our forests as it is in those of more temperate climes.

25. *Fencing.*—As a rule, when forests are closed it is sufficient in the Oudh circle to let the people know that certain forests are closed: these are usually surrounded by burnt areas, where the grazing is superior to that inside the forests; but in Bhinga (Bahraich) we have to fence; we find practically that ditches fill up, that pig and deer make runs which are soon followed by cattle and which are difficult to stop up; the soil is too poor to plant quick-growing green hedges in (it is to improve the soil in the first instance that we close the forests for), so we make hedges of dry thorns which are suitable, but have to be renewed every year.

26. *Closing against hunting and shooting.*—The fire-protected blocks were closed by notifications in the Government Gazette against hunting and shooting during the fire-conservancy season, and there were consequently no inducements to the game-butchers to burn patches inside the closed blocks, and as these people were not allowed to travel about with lighted fuzes in their matchlocks, to fire off cow-dung wads or blaze into the grass, they did not endanger the closed blocks.

(5)—NATURAL REPRODUCTION.

27. *Of the circle.*—As I pointed out in last year's report (paras. 29 and 30), there are in the Oudh Circle two methods of natural reproduction, *viz.*, that of the sál or highland forests, and that of the sissu or lowland forests; in the former the seed falls to the ground near the parent trees, and in the following remarks includes bambus, sál and khair (I believe their seed are often carried by rain as distinguished from river water); in the latter the seed is conveyed by the aid of river water to places favourable to germination, *viz.*, silt deposits.

28. *Of sál and other trees on high ground.*—In the sál forests, where there is much grazing and trampling of cattle, the reproduction (there was plenty of seed in 1881-82) is scanty; but in favourable soils, where the forests are closed against grazing and fires, the reproduction is good. The advantages of closing are most marked in the Dudwa home-block of Kheri and in the Nishangarah home-block of Bahraich. In Pilibhít, Bhira, and the Bhinga sub-division of Bahraich the blocks have not been closed long enough to show important results, though in the south Ponsonbyganj block of Bhinga, now closed for 11 years, where the soil was extremely hard at first, the good effects of closing are beginning to be apparent: except in this closed block there are practically no seedlings in the Bhinga forests, owing to the trampling of cattle; the soil here is more clayey than in most of the other forests, and the cattle are able to remain in the forests in the rains, whereas they are not in the other level and more sandy sál forests. Yearling seedlings have often been noticed in the Ponsonbyganj block, but again on inspection they have been very difficult to find, and some people have thought that no reproduction was going on, as the yearlings often died down to the ground; however, this year it has been found that there are seedlings of several past years coming up, showing that though the yearlings died down to the ground, the roots still retained their vitality and have gathered strength enough to withstand the drought or swampiness of the ground and that the soil is improving, both chemically and physically. It is a long time to wait, but on the other hand to get a proper seed-bed, the soil would have to be dug up to a considerable

depth and at a great expense. Sál seeded well in 1881-82, but very scantily in June, 1883; in the Akonah forests of Bahraich (see paras. 102 and 103 of last year's report) there were numbers of sál yearlings under the old trees of Pichwari (forest No. 1.) When I visited the forests in November, 1881, these had only roots of 6″ to 9″ in length. Mr. Rebsch noticed that many died in the commencement of the hot weather of 1882, some drying up, and others having their roots cut underground by the larva of some insect, probably that of the dung-beetle or cockchafer. These seedlings were about 6″ high and had about 5 leaves each; when the rains came almost if not all of the survivors of the hot weather also died; but most of the seedlings of June, 1881, that were transplanted from the forests by Mr. Rebsch in May, 1882, and watered till the rains, all lived through the rains. I examined some of the roots of the transplants in November, 1882, and found that where the roots had been taken out entire, the tap-roots had increased from 6″ and 9″ to 18″ and over, the plants themselves being about 1′ to 1′ 6″ high with a dozen leaves. It seems to me that the long roots being deeper in the soil allowed a certain amount of air to the plant, which the shorter roots of the untransplanted seedlings did not; the top layer of soil was, as it were, waterlogged with the first heavy showers, and the plants received no air, but only water from the roots. Dr. Brandis, quoting Colonel Stenhouse in his remarks on the Ponsonbyganj block, notices the probability of the seedlings having been swamped, and it would appear that till the surface soil, hardened by the trampling of cattle and the exposure to the sun, has been softened by the action of humus, we must not look for favourable reproduction of sál, though ebony and similar trees may not be so much affected. In the experimental cuttings of Akonah of May, 1882, some of the lines hoed up showed seedlings of June, 1882, in November 1882, with tap-roots fully 18″ long, whereas seedlings in the natural ground had only roots 6″ to 8″ long; it will be noticed whether these seedlings survive the hot weather and rains of 1883.

In the Nishangarah home-block, at the north-west extremity, khair was noticed for the first time reproduced in any numbers; cattle had only been kept out of this part for about 3 years and the seedlings were probably of June, 1882; they were in many places topping the grass; they may have been of June, 1881, remaining unnoticed in the grass, but they were not larger than those I have seen artificially grown in Gorakhpur, sown in April-August, 1882, which averaged 4′ to 7′ in height with tap-roots of about the same length. This khair reproduction was not on land covered with flood-water, but on the sloping ground at the edge of the sál forests. In the eastern part of the Nishangarah home-block dhao seedlings were noticed in dense thickets about 6′ high; there being generally no quantities of saplings in the vicinity shows that reproduction is taking place in greater quantity now than when the block was not closed. The bambu seedlings at Salarpur in the adjoining block which has been protected from cattle and fire was progressing favourably in cultivation: and in the Akonah forests I noticed that from bambu clumps that seeded at the same time there were few, if any, seedlings, and the only ones that there were, were so protected in the dead clump of the old and dried stems that cattle could not get at them: it is only reasonable to suppose that cattle had eaten off the young seedlings that came up and were not protected. In the Angarghát block, protected from fire but not from cattle, there was no reproduction of khair, though there are plenty of mature trees.

29. *Of sissu.*—In the lower closed block at Dudua, where the reproduction commenced about 1873, and where the first sown trees are getting the size of poles, seedlings are appearing and topping the grass in many places, and in the part closed last year the seedlings are topping the grass; these are seedlings of June, 1881, most probably and more seedlings are coming up; they may be seedlings of the same year kept down for a time by the grass or they may be seedlings of June, 1882. I hope in time the block will be fairly stocked with sissu. This production fortunately took place at a spot often passed by the Divisional Officer, who thus noticed the progress of the seedlings in the grass and was able to add the plot on to the old closed block.

It is probable that there are many other places where reproduction takes place every year, but from the seedlings not being noticed they get burnt over in the grass fires of the following March, and it will be probably found advisable, when we are sufficiently well officered, to inspect the banks of the river before burning time, cutting fire traces round the places where the young growth is, marking them off with high poles and gharras so as to know them again in the following year, and to protect them from fire and grazing till the trees are able to take care of themselves, which they will be in a very few years, the growth of sissu on a suitable soil being extremely rapid.

30. *Shelter for cattle on grazing grounds.*—It is true that these trees will be in the principal grazing grounds, but clumps like these are invaluable to graziers for the protection they give to cattle from the sun and from cold winds, rain and hail, the two latter of which are often very destructive to cattle when they cannot get to the shelter of trees.

(6)—ARTIFICIAL REPRODUCTION.

31. *Of the circle.*—In last year's report I entered fully into the artificial reproduction of sissu and sál (paras. 47, 48, 71d′, 77d′, 85d′, 97d′, 103 and 110d′).

The abstract of plantations is given below :—

Area on 1st April, 1882.	Area on 1st April, 1883.	— or —
791 acres.	972 acres.	+ 181 acres.

There were really 221 acres added, but 40 entered by mistake last year were written back. The total amount expended was Rs. 13,126, against Rs. 9,459 at the end of 1881-82 ; the expenditure of the year being Rs. 3,667, of which Rs. 2,060 is on the 221 acres new and 751 old, Rs 1,451 being on cultural operations in the forests, an account of which will be found under " Experiments and exotic trees."

32. *Almost all sissu.*—Almost all the area is under sissu, only 3 or 4 acres are stocked with teak and bambu; our attention is principally directed to sissu, both on account of its intrinsic value and the difficulty of getting natural reproduction in compact massess.

It appears to me that one of the faults of plantations in general is their being too pure, and not having the different species sufficiently mixed for the welfare of the superior species ; and where our plantations are on a large scale, tun, khair, and other useful trees will be planted to fill up spaces, so as to give the sissu the best chance of yielding valuable timber, tun being allowed to remain where it does no harm and to fill up vacancies, and the khair being cut for catechu when the sissu are of middle age, as the khair will then make excellent catechu, and thus the thinning operations will pay and perhaps more than repay expenses. In Sakhwi 80 acres, originally planted 30′ × 30′ with sissu, have been filled up at 15′ × 15′ with khair trees, &c.

33. *Future market for sissu will probably be good.*—His Honor remarked in part 2 of para. 6 of Resolution No. 109 of the 2nd February, 1883, that the experiments of planting sissu in the way proposed might be too great in the present state of the market ; but I would beg leave to point out that though the first cost of each plant is perhaps more when large trees are planted than when small ones are, on the other hand—firstly, the planting is made a certainty ; secondly, the trees are planted further-apart and thus there are fewer plants per acre ; thirdly, that much time is gained in obtaining the final crop ; and fourthly, that the cost of keeping up of the plantation is reduced to a minimum. Sissu is being cut freely in Nepal and places near the forests, and as, with cattle grazing and increasing cultivation in Nepal and near the forests, the supply in a few years will be much less than now, and there will be less new growth than formerly, so that when the present plantations come to maturity in 30 or

40 years there will be a great demand on the Government plantations, as sissu will always be required for cart-wheels and agricultural implements.

34. *Of divisions.*—(*a*) The sissu plantations in Bahraich should really have been placed under "cultural operations," but as they have been before entered in the area of plantations I have kept them there for this year. At Nishangarah the grass is too high for small trees, and is apt to smother them and retard their growth, and this grass cannot be kept down in the rains (the time I consider that the greatest damage is done). Almost all the seedlings referred to in para. 97 of last year's report are alive but stunted, and the curious fact is that there seems to be but little difference in the trees with long roots that were treated in the four different methods, *viz.*, first, being well watered at the time of transplanting, receiving no artificial watering afterwards; second, transplanted similarly with whole stems, watered when transplanted and continually watered till the rains; third, trans planted with the upper part of the stem cut off, 1′ only remaining above ground, and treated as in the second method; and fourth, the plants that were subsoil watered. It is probable that the long roots were not carefully enough extracted, for it is very difficult to get the roots out entire when the roots have not been confined artificially in the nursery, and then the plants have not been able to assimilate the moisture, &c., supplied to them, and have consequently not vigour enough to push themselves above the long grass by the time the rains commence. The sissu transplanted on the Kaim nálá are not doing well: there is too much shade from the adjoining trees and the soil is waterlogged. In the Dundra or Kakardari block the thorns are too dense and the soil too hard for the trees to make much progress; most of the plants have been kept alive and the thorns cut away in some places. One acre was planted near the Ponsonbyganj rest-house with sissu, these are doing fairly; there is no shade and grass to contend with, but in transplanting the earth was not consolidated enough round the plants, and consequently with deep and large holes the earth and trees have sank about one foot below the surface, rendering the trees liable to have stagnant water round their roots in heavy floods.

(*b*) In Gorakhpur, in the Ramgarh plantation the small trees planted in the past five years on the large clearances of sál forests made by Mr. Amery are struggling with grass and young coppice shoots; it is a question which will get the lead, and it is not worth while clearing the grass away in the cold weather when the trees are smothered in the rains; this part of the plantation will probably either have to be left alone or replanted out with large trees when the system has been fully developed.* The plants however that have been planted on the lower ground on the right bank of the Tura nálá, outside the sál forest proper, are doing well, as also the bambus, particularly the ones that have good rich soil or have been planted under the cover of thorny bushes.

35. *Old plantations and trees of late years.*—In last year's report I mentioned the size of the trees in the small plantations made by Shaikh Mohi-ud-din, Mr. Amery, and Mr. Grant; some of the suppressed trees have been thinned out; this operation will have continually to be performed.

36. *Sakhwi plantation of* 1881.—In Sakhwi the trees planted out in the past two years are doing splendidly; it is in Sakhwi that most progress has been made; these lands had been cultivated and were clear of grass. Mr. Campbell planted out in the rains of 1881 some seedlings with roots perfect or nearly perfect, which had been sown in the nurseries in April, 1881, these trees, in some cases planted 15′ × 15′ and in others 30′ × 30′, are doing wonderfully well; 50 trees measured in one line give an average height of 17′ 5″, the tallest being 23′ 6″ and the shortest 10′ 9″; these trees were measured on the 29th May last, so that they were then little more than two years from seed, not quite two years transplanted; their girth at one foot from the ground was about 8″.

*Reports have since been received that the sissu is topping the grass in many places.

These plants had great advantages. Mr. Campbell was able to plant them in the rains, the country being open and comparatively healthy, and the grass that came up after cultivation was short and mostly dhúb.

37. *Present system of transplanting sissu at Sakhwi.*—Since then Mr. Campbell has been planting large plants with long roots in the following manner: pits 3′ to 4′ deep are dug, being 3′ at top and 2′ at bottom diameter; a strong sál peg, about 6′ long, tapering to a point, is then driven level with the ground, in the centre of the pit; two ropes, each 2½′ long, are attached to the top of the peg, to draw it out after it has been shaken; the roots about 6′ long are loosely tied to a long grass stem and put into the bottom of the hole made by the peg; water is freely given at the bottom and the earth filled in; the earth is consolidated with water as the pit is being filled up; when filling in the pits fascines of grass stems (these fascines replace the bambus used at Nishangarah last year) 3′ to 4′ long are buried from near the edge of the pit at the top to the top of the peg hole; the fascines are about 3″ in diameter; the stems of the transplants are generally from 3′ to 6½′ high; when the plants are watered, the water is given where the top of the fascine appears at ground level, so that the water, instead of soaking in at the surface and being liable to rapid evaporation, percolates through the grass fascines to the top of the peg hole and into the peg hole itself, thus supplying moisture not only to the top parts of the root but to the very lowest rootlets. This system of deep-root planting and sub-soil watering has the great benefit of allowing transplanting operations to be carried on for the greater part of the year; the saving of water is very great, 4 gharras lasting a plant for about 20 days.

(7)—Cutting of Creepers, &c.

38. *Circle.*—Little has been done during the current year, partly on account of the time of officers being taken up either with pioneering works or sleeper operations, and the sleeper and other operations taking up most of the labour available, and Messrs. Dansey and Pinder were away on leave.

39. *In divisions.*—(*a*) In Pilibhít and Bhira the forests are being formed into blocks; when these are completed creeper-cutting will be taken in hand, commencing with the blocks that have been closed against fires. (*b*) In Kheri nothing could be done, as the whole of the spare labour was utilized in clearing the Nepal frontier and in extra felling operations. (*c*) In Bahraich Mr. Battie was single-handed and was busily occupied with sleeper work, the first time that such an operation has taken place in the division. (*d*) In Gonda, Mr. Rebsch was for a long time away from the division, demarcating and experimenting in Akonah. (*e*) In Gorakhpur a little was done near Daibar, but labour was difficult to be procured.

40. *Thinning operations.*—The only thinning operations that took place were in Gorakhpur, where the regular plan was carried out; the results will be found under "Yield and working." I hope we shall be able to commence these works in Pilibhít next year or the year after, when the Pilibhít and Bareilly Railway will open out a larger market for thinnings than we have at present; the first operation will be the cutting over of sál trees that will never, if left to themselves, make good poles, and will be principally sold for fuel and charcoal, but by being cut over they will most probably produce straight poles, for which there will be in a few years (with cheap railway communication) a large demand; for many years these forests will have to be worked as coppice, gradually improving them by the substitution of seedlings for the present stock, which must in time get exhausted. The railway is now sanctioned from the Oudh and Rohilkhand Railway at Bareilly to Pilibhít and from Lucknow to Sítapur, in time it is hoped that the line will be continued from Pilibhít to Sitapur; when this is done, the Bhira forests will be able to be thinned out with profit; everything is being arranged for the proper working when this time arrives by division into blocks and by improved communications.

41. *Future market for thinnings; Pilibhít and Bhira.*—The line of railway will probably pass near Mailani on the Shahjahánpur frontier, and this place will probably

be the depôt for large quantities of thinnings, which in the shape of poles, fuel and charcoal will be able to be conveyed at cheap rates either northward to Pilibhít and Bareilly or southward to Sitapur and Lucknow. Mailani will also be a depôt for larger timber from Dudua, the head-quarters of the Kheri division, with which place, owing to the bridge of boats being kept up at Srinagar ghát, there is good communication, the distance being about 20 miles from Dudua to Mailani. I believe that if the Pilibhít-Sitapur extension were made it would help greatly to raise the revenue of the forests, and also that the carriage of forest produce alone would bring the railway a good income ; and if the railway authorities would use wood fuel in their locomotives, the whole of the line from Lucknow to Bareilly might be worked very cheaply as regards fuel.

(8)—Experiments and Exotic Trees.

42. *With sál and sissu; circle.*—The experiments in artificial reproduction made last year were cutting over young sál trees with a view to getting straight coppice shoots ; (2) the transplanting of sál seedlings ; (3) the preparation of ground in the forests for sál seedlings; (4) the sowing of sissu on banks ; (5) the transplanting of sissu ; (6) the coppicing of sissu ; (7) the preparations for the nursery and transplanting.

43. *What, it is thought, has been learnt from them.*—Much has been learnt during the year, but still much remains to be learnt before operations can be conducted on a large scale. I think that from the above experiments we learn—1st, that in cutting over a small area the young growth is attacked by insects which generally feed on the small soft shoots; that the young growth should be as near as possible in the same stage of growth as regards young leaves and shoots as the old trees that are near them ; if they are later or earlier they are more likely to be attacked than when the old trees give tender leaves and shoots at the same time : 2nd, that sál seedlings, nearly one year old, transplanted from the forests, watered and placed where the subsoil is softer than it was in their birthplace, not only last through the hot weather but survive the rainy season, whereas the seedlings left on the hard soil where they germinated are killed by deficiency of air to and excess of moisture to their systems, showing the great benefit of the soil being rendered more porous by the prevention of cattle trampling and the admission of air into the soil by the decay of vegetable matter : 3rd, that if the soil is even artificially prepared, as by rough hoeing, for the reception of the seed, a stronger growth with larger roots is at once obtained : 4th, that the system of sowing on 1½′ banks, broad enough to keep down the grass for a few years, is successful when the grass is not over 6′ high and when the banks are not topped by floods ; that the system cannot be pursued with success when the grass is over 6′ high and when the floods overtop the banks ; that in the former case the seeds germinate well, and though comparatively small, not much over 1′ in height on an average till the commencement of the next spring, they require no artificial irrigation in the hot weather, and that in the second succeeding rainy season they will be able to get their roots well down and have the advantage of the grass till they ultimately kill it down with their shade : 5th, that the transplanting sissu trees 6′ and over in height, seedlings of under 1 year and 2 years can be successfully transplanted in tall grass, as long as their roots are perfect, with a great saving in artificial irrigation and with but little danger from the surrounding grass ; that 6′ trees transplanted with 6′ roots, even though not perfect, live with but with little artificial irrigation, though they may be kept backward for some time till they have fairly established themselves in the soil, several years however being lost in recovering themselves : 6th, that the trying to obtain a regrowth of sissu from root suckers will not succeed where the grass is high : 7th, that the cheapest thing in the long run will be the extracting of the roots in 6′ pots, 4″ in interior diameter, built up of tiles having their interiors semi-circular and their exteriors semi-hexagonal and rabetted at the lower edge to fit closely into the upper ends, each piece being about 1′ in length ; thus the roots can be got out perfect, with the advantage that the tiles can be used many times, saving

expense; that nothing under 6′ will do for sissu sown in April-May in order to get length enough of stem in October-February for cold-weather planting in long grass; that, till we have invented a special tool for boring or digging deep narrow holes, the system followed by Mr. Campbell and described in para. 37 of this report is the cheapest and best.

44. *Experiments with sál coppice.*—(*a*) In Pilibhít, the first strips in the 4 acres at Mahofe, cut over in March, 1882, have made good shoots 8′ and 10′ high, but not very straight; another strip was cut over in the middle of the 45′ strip left untouched last year. The one acre of sál scrub has not had a fair trial, as two fires passed over the ground; but Mr. Ponsonby reports the growth as fairly good. (*b*) Bhira: the year's shoots are 6′ high and over, but at present do not look very well. Mr. Wilmot's experimental block of 6 acres, 1876, I had not time to visit, but hope to report on it next year. (*c*) Bahraich, Akonah: the strips cut over in May, 1882, had made good growth in November of the same year, being on an average over 6′ high, but the shoots were attacked, particularly at the tops, by insects; this is evidently one of the causes of the crooked growth of young coppice stems even where fires are excluded. The insect, whatever it is, rings the bark near the succulent top, killing the part above it and thus causing a lower shoot or shoots to take the lead. The parts where the sál scrub was cut over in Akonah have greatly improved.

45. *Transplanting sál.*—(*a*) Bahraich, Akonah: 1 acre was planted 6′ × 7′, the transplants having 6″ to 9″ roots and being about 5″ to 6″ high; the seedlings were transplanted to holes dug on the edge of the small trenches, in which water was supplied from a kutcha well in the centre of the plot, and holes (made with a tent-peg) filled with sand from the trenches to near the bottom of the roots, which allowed the water to get there without caking the surface near the plants. Almost every plant lived, though transplanted in May, 1882, and in November, 1882, were alive and doing well, being about one foot high on an average and had lived through the rainy season, though the natural and unremoved seedlings of 1881 nearly all damped off, notwithstanding which a new crop of seedlings of 1882 took their place, most likely to live only another year. I dug up three transplants; in two the roots, which had been perfect, had increased from 6″-9″ to 18″-20″ (this length was got out of the soil: the hairlike rootlets were probably deeper in the soil); the third, which had its tap-root cut in transplanting about 9″ below the surface, had only made a spur root downward 2½″ long, though the upper part had more fibrous roots than the other two and the main root was much stouter, acting probably as a reserve for the young stem to draw on.

46. *Experiments in preparing soil in forests.*—(*a*) *and* (*b*) In Pilibhít and Bhira a few seedlings germinated in the strips that were hoed up; a few seedlings in pots made 18″ root growth till they were stopped by the bottom of the pots. (*c*) Bahraich: in the Kakardari and Asneria blocks seedlings came up on the small banks and trenches where the soil had been disturbed, but here the soil is too poor and hard for the seed to do much good. In Akonah in the strips that were hoed up seedlings came up well, and on some being dug up were found to have fully 18″ to 20″ of root, whereas, as already shown, in Pichwari on the hard soil the plant had only 6″ to 9″ tap-roots; it will be seen after the present rains if these plants with 18″ to 20″ roots escaped damping off. (*d*) In Gorakhpur Mr. Campbell noticed the seedlings of May, 1881; they died down to ground level, but shot up again: these were not watered.

47. *Sowing sissu banks.*—(*a*) In Pilibhít the sowing of sissu on boundary banks did not succeed; the soil was new and the banks of a conical shape, and I expect that the top-soil in which the seed was sown got washed down by the rains and the seed exposed, as the few seedlings that were found were generally low down on the bank and very puny; the soil also was poor. (*b*) In Bhira, on the regular banks, described in para. 77 (*d*) of last year's report, of which there were 44 made, there were only two or three banks on which sissu seed has not germinated; the plants were only from 6″ to 2′ high in March, 1883. The

plants had been eaten over, but, on my inspection on 25th March, 1882, they had thrown out new leaves and shoots, showing that they had got firm roots in the soil; the grass had unfortunately been cut, but it was comparatively short and would not have done any harm, and the tops and slopes of the banks themselves were naturally clear of it. Sissu sown at the same time on cultivated ground, protected from cattle, not artificially watered, but hoed and weeded, had made better growth; these sissu were sown for transplanting, filling up vacancies, &c. 62 banks of sissu and 24 of khair were sown in May, 1883, alongside the former ones. An experiment is now being made, in a few banks, to see if by loosening the soil on the ground below the banks and immediately under the line of sowing it will help the roots to get deeper into the soil at the first start, as the roots may be stopped in their growth by the matted grass root-surface on which the banks are made. (*d*) In Kheri, in the Dudua lower closed block, though the seeds were germinating when Mr. Allan left in June, 1883, the floods afterwards topped the banks and swept away the seedlings; the grass too was too high; where seedlings were found they were very weak and puny; the grass had come up through the slopes of the banks, leaving only the tops bare; these were generally covered with green mould and were surrounded with grass 8′ high and over; the ditches were overgrown. Some of the seeds swept away may come up in favourable places. In Saranta Phanta, which is on high ground, where the grass is comparatively short and only surface water flowing a few inches deep in the rains, the seed germinated on the banks and the growth was like that of Bhira, but the site being at the edge of the sál forests, the pig and deer ate over the seedlings, made use of the banks as resting-places (they being comparatively dry) and had broken very many seedlings down, but Mr. Allan reports that they are now looking promising. The Bhira and Saranta Phanta experiments show that by giving the seedlings sun and air, they can live through the hot weather without artificial irrigation: when large areas are sown it is not expected they will be so much damaged by game as is a small area. (*d*) In Bahraich, only a few banks were made at Nishangarah and sown with khair and sissu which as yet have not succeeded well. In Akonah, for the sake of convenience, the experiments were tried near the hut in which Mr. Rebsch stayed in the hot weather, and the soil was very poor and full of shot-like kankar; the seedlings were very small and puny. It must be remembered that our regular nursery sowings are made in April, in well-prepared earth, carefully watered and weeded in May and June, and thus get a great start of natural-sown seedlings which germinate in the commencement of the rains; but in the artificial system nearly every seed germinates; in the natural perhaps millions of seed are destroyed for every plant that survives to form a timber tree, and we want a long stem to plant in long grass. In the Kapurthálá state plantation of Akonah sissu sown late in the year was not much larger than our Bhira and Saranta Phanta bank seedlings; but the ones of the year before, irrigated and weeded, had grown too large for regular transplanting, their roots being too deep down in the soil to get out the roots perfect.

48. *Transplanting sissu.*—(*a*) In Kheri, as mentioned in para. 85(*d*) of last year's report, 4,724 sissu plants were planted out in the Dudua lower closed block; many of these had not their roots entire; these died after a time and Mr. Allan replaced them with natural-sown small seedlings; but the Soheli rose 5′ or 6′ above the usual high-water level, and trees that could not overtop the flood (which lasted about ten days) were killed; 978 however were alive in November, 1882, and the vacancies were filled up with the suckers that had grown in the pits (alluded to in para. 85(*d*) of last year's report). Mr. Allan got the roots out as long as and as perfect as possible and transplanted them in the vacancies; some died down, but from the power in the roots they sent up shoots which, it is hoped, will survive the rains. (*b*) In Bahraich the trees planted at Nishangarah have been kept back by the long grass which they have not yet cleared; it is curious that there seems but little difference in the plants that were planted in the four different ways, *viz.*, (1) those watered at first at the bottom and then left without artificial watering; (2) those that were transplanted with whole stems, watered well at first and then watered regularly till

the rains ; (3) those that were watered similarly, but had their stems cut off, above the ground, to prevent excessive evaporation, both from the leaves and stems ; and (4) those that were subsoil watered, though they seemed better at first. I think the fact shows the importance of having not only long roots but entire roots, and these could not be obtained. In March of this year Mr. Battie planted out a few 5′-6′ sissu in the Ponsonbyganj closed block (No. III. of Bhinga) with long and fairly good roots, giving the plants a watering of eight gharras at the time of transplanting ; these trees are doing well, though they received no artificial watering during the whole of the hot dry weather ; some sissu were planted in an open grass plain near the Ponsonbyganj rest-house at the commencement of the rains of 1883. (c) I have reported on the success of transplanting in Gorakhpur. Mr. Campbell has since the commencement of the rains planted out sissu trees sown in April, 1881, some 20′ high, with apparent success up to the present, in many cases the trees not even losing their leaves after being placed in their new position; some sissu seedlings that were grown in 3′ long cylindrical tiles and planted at Debichaur in December, 1882, are reported as doing well.

49. *Experiments in preparation in the nursery and transplanting.*—Besides sowing seeds on regularly prepared ground, I tried if it were possible to confine the roots of sissu seedlings, and (1) sowed seeds in gharras placed in beds in the ground and bored with small pin holes to let out superfluous moisture ; (2) in 1′ 6″ pots with holes at the bottom, placed in shallow saucers and kept in beds ; and (3) in 3′ cylindrical tiles fitted into deep saucers. In the first case, if the seedlings' roots were confined, they were puny and not fit to be planted in long grass, and if the rootlets got through the pin holes they grew much stronger, but the roots going through the pin holes enlarged on both sides, going deeply into the ground outside the gharras, but being unfit for transplanting, as the roots broke on the surface of the gharra ; in the 1′ 6″ pots the roots got through the hole at the bottom and into the saucer, going over the edge of it and then straight down into the soil, not to be got out without great difficulty ; in 3′ cylinders with deep saucers the roots went straight down for the 3 feet and then, finding escape impossible, curled round the bottom of the saucer like a curled-up snake or the neatly-coiled-up end of ropes on the deck of a tidy ship! I consider that roots of sissu fit for transplanting in long grass cannot be confined except in pots 6′ long, that being the length they grow when left to themselves. As mentioned in last year's report, what I aim at is to get long and *perfect* roots and cheap deep narrow holes. I had to give up trying to make tiles 6′ long in one piece : the contraction of the clay is so great that the pipes break. I have now tried making up the pot in pieces and expect to succeed. The contraction in drying is more than 1″ in 13,″ but by a second pressing of the tile in a half dry state I find that perfect fitting tiles can be made, and hope next cold weather to have everything ready for sowing in April next : the pots not having to be broken for the extraction of the roots, they will thus do many years' work, and expense will be reduced. With cheap deep narrow holes I have not yet been successful, but the digging of a 4½″ diameter hole 6′ deep really only means the removal of less than ⅔rds of a cubic foot of earth, and I hope to arrange this in time cheaply. I tried some tools similar to those used for boring artesian wells, but the friction on the sides of the holes was too great and the work was slow and expensive. The advantages that I expect from the narrow deep holes are that the plants will be nearly put in the same position in the soil that they were in the pots ; that as the sides of the holes will be but slightly exposed to atmospheric dryness the moisture will not be soon evaporated, and that less water will be required in transplanting than where a large pit has to be dug. In the end of December, 1882, at Sakhwi, Gorakhpur, I transplanted a few sissu about 6′ high and with 6′ roots nearly perfect, in machine-made holes 4½″ diameter and 6′ deep, using only two gharras of water (which more than filled the holes) ; these trees have had no artificial watering since and have lived all through the remainder of the cold weather and the scorching months of March, April, and May. If the plant can be transplanted with the soil round its entire roots into a hole but little larger than the

cylinder of the earth, I believe that with one gharra of water the plants will flourish, as it is really in a better position for growing than it was when it was confined by the pot ; this can be done cheaply only when the nursery is near the site of the plantation. If, however, the trees have to be transported to any distance, the entire roots can be separated from the soil by shaking them in a trench full of water and agitating the water, when the young rootlets can be got entire, and after being dipped in clay and water and packed in damp grass they can be replaced in the soil with but little damage to their immediate growth, and if the new soil is only damp enough to provide for immediate evaporation, the young rootlets will soon be in a state to nourish the tree and let it increase in size.

Some of the vigorous young sissu at Sakhwi (Gorakhpur), though only two years old, seeded.

Mr. Campbell is about to try sissu planting by planting seedlings sown in April this year on some hills in the Dumri (Court of wards') estatefor the Collector of Gorakhpur.

50. *Exotic trees.*—(*a*) In Kheri we found the ground selected could not be kept free of grass, so the site has been moved near to the Dudua compound; the difficulty before was to get water sufficient for irrigation; this however will be got over by building a large well on the low ground below the sál high bank and raising the water on a wooden frame-work to the high ground some 20 feet above the mouth of well. A few *Eucalyptus* planted in the Dudua compound are doing well.

(*b*) In Gorakhpur *Broussonetia papyrefera* had grown up well, but not seeded yet. A few carobs were raised in Gorakhpur and given away ; a few are in Gonda, but not thriving.

I hope to have some mahogany seed and seedlings before next year : the seedlings grown with perfect roots and transplanted with them.

51. *District arboriculture.*—I consider that the experiments now being conducted with sissu will eventually help to make roadside and grove-planting a thing of certainty, and at a greatly less cost than as carried on at present with little seedlings which have to be constantly watered, hoed and weeded and constantly replaced, owing to their being only surface-watered and having short and incomplete roots, and their being planted with a hard and undisturbed sub-soil. The comparatively slow-growing trees usually planted in avenues, as mango, jack, tamarind and tun, can be transplanted when older than sissu, and can probably be left in pots till they are 2 or 3 years old. Mr. Buck, the late Director of Agriculture in these provinces, was right in his instructions to plant large trees for avenues, &c., but I do not think so much was known about root growth as it is now ; the roots of large seedlings were not got out entire, and consequently the planting of large seedlings is not approved of by the native gardeners.

Mr. Campbell kept down the grass in the grafted mango garden by cultivating crops which brought in some money, improved the bridge, cleared the well, cleared all the ground and stumped it, and protected the mango grafts from frost till late in the season. I inspected the road-planting 8 miles from Kusumi towards Hatta, and the trees seemed doing remarkably well, there being no vacancies. In the nursery no more seedlings were raised, there being sufficient for present requirements. Details will be probably given by the Agricultural Department.

Whilst sissu makes 6′ of root in 8 months *Pinus longifolia* sown in soft soil at Naini Tal only made about 6″ in the same time ; this is similar to the growth of seedlings of temperate climates, and shows, I think, that different methods must be pursued in dealing with the trees of the plains of India and those of moist and temperate climates.

(9)—COMMUNICATIONS AND BUILDINGS.

52. *Roads ; circle.*—Sixty-seven miles of new road were made besides 12½ miles of fire-paths ; about 800 miles of old road were repaired, the bridges kept in good repair, and one new Irish bridge was constructed. The cost was Rs. 12,284-11-5.

53. *Roads; divisional.*—(*a*) In Pilibhit 5 miles 4 furlongs of block lines and 12 miles 2 furlongs of boundary roads were made. (*b*) In Bhira five new roads, total 25 miles 1 furlong, were made and also four fire-paths, total 12 miles 5 furlongs: the latter are for fire-conservency and inspection and not for traffic. (*c*) In Kheri three new roads, 4, 3, and 2½ miles respectively, total 9½ miles, were made from wells, Nos. 4, 5, and 6 on the main Dudua line to Bankatti, where the new rest-house has been built, to open out and protect that part of the forest and to replace tortuous cart tracks; 230 miles of old road were kept in order and 20 bridges repaired; the Soheli bridge, once carried away by a cold-weather flood, was kept up till the rains; the bridge of boats over the Sarda at Srinagar was opened for traffic in October, 1882, and kept up till the 10th June, 1883; the traffic increased month by month till it reached Rs. 600 in May. The compensation given to the ferry fund was Rs. 400 (to be increased to Rs. 1,000 per annum in this and the following years). The bridge was much used and will be more so as it better known. In the coming year I hope to be able to give the financial results when the expenditure has been properly divided between capital and yearly expenditure. Arrangements having been made with the Collector of Sháhjahánpur, a bridge was made over the Katna nalá and a road made from the end of the forest road on the Oudh-Sháhjahánpur frontier to the road which runs from Sira Mau to Khotar, thus making through and good communication between Dudua Palia, Bhira and Mailani with Sháhjahánpur. A depôt for timber for both the Bhira sub-division and the Kheri division will probably be eventually made at Mailani as approved of by Dr. Brandis. I have alluded to this line of export in para. 41 of this report. The Soheli was as usual cleared of snags and many overhanging trees cut away, to prevent their becoming snags when the banks are cut away by the river. (*d*) At Bahramghát some new packa roads were made in the yard, to facilitate the removal of logs and scantlings. (*e*) In Bahraich 5 miles of new road were completed in Section VIII.; the whole of the communications in this section west of Sohelwa, amounting to about 38 miles, will be probably completed during the year; 24½ miles were made in 1881-82. A new road, 3 miles, from Nishangarah to Bhagar Dharmapur, was completed in Section II.; 3 miles of new line were marked off in Section VII.: this is for enclosing the future southern closed block of the Bhinga forests; a bridge for cold-weather traffic, over which the flood and snags will pass in the rains, was made over the Mand nálá in Section IV., Chakia forests, on the Nepal frontier; materials were collected for making a high bridge over the Khaim nálá, between Bhinga and Sohelwa: this will be of great use to the people in the vicinity of the Bhinga and Sohelwa forests in the rains and will promote traffic towards Bhinga in the cold weather. In Akonah Mr. Rebsch made several miles of road in the Kapurthálá forests, both block and boundary lines, the latter dividing the outer forests from those that are to be reserved. (*f*) In Gonda, though Mr. Rebsch's time was greatly occupied in the Kapurthálá forests, he made 2 miles 5 furlongs of road over very difficult ground, from Chandanpur to Rehra in Section IV., very useful for inspection, fire-conservancy, and the use of villagers; it is not practicable at present for carts. In Ramgarh 7 miles of road were marked off from the rest-house to the north-east corner of the forests, of which four miles have been completed; 2 short lines, total 2½ miles in length, were also marked off, 47 miles of road were repaired. (*g*) In Gorakhpur 2 miles of new road were made from Sakhwi towards Ganeshpur; 25 miles of old road were repaired; the bridge over the Mala swamp near Barsaina was twice repaired, and the bridge over the Mala swamp between Chauk and Daibhar has been completed; thus communication can now be kept up between the northern forests and the head-quarters of the range at Chauk; some of the block lines in Ramgarh are also being gradually cleared of stumps, which will facilitate inspection, traffic, and fire-conservancy. The Piás and Rohin are being cleared of snags for improved water communication between the northern forests and the town of Gorakhpur.

54. *Buildings; circle.*—During the year one first-class double-storied rest-house was completed, one nearly completed, and the materials collected for another; one

second-class double-storied rest-house was finished (all but a few fittings), 2 second-class single-storied rest-houses were completed, one nearly so, and materials collected for another, and 7 out-houses were completed—namely, 2 sets of servants' houses, a cook-room and godown, 2 tiled sheds for the preservation of timber and a watcher's house. The buildings had the annual repairs and white-washing; the list of buildings is shown in appendix No. A. of this report. The cost has been Rs. 16,611-10-7.

55. *Buildings; divisional.*—(*a*) In Pilibhít the first-class double-storied rest-house at Mustafabad, which will be the centre of the future closed block, was completed. (*b*) In Kheri the second-class double-storied rest-house at Bankatti was completed, with the exception of some joiner's work; 3 sets of out-houses were made, *viz.*, cook-room and store-house at Bankatti and servants' houses at Sonaripur. Work has been commenced for the new first-class double-storied rest-house at Salukapur. (*c*) In Bahramghat two new tiled sheds for storing scantlings were erected, and also a watcher's house at one of the entrances to the yard. (*d*) In Bahraich the fittings of the third-class rest-house were completed, the only other work but repairs being the out-houses at Sohelwa. (*e*) In Gonda, though the first-class rest-house has not been completed, it is hoped that it will be next cold weather. Mr. Rebsch, owing to his Akonah duties, was not long at Chandanpur, and the mistri in charge died in the rains of 1882, and his son, who succeeded him, fell from the scaffolding and died. Chandanpur is much out of the way, and skilled labour very difficult to obtain. (*f*) In Gorakhpur the Mandaulia and Bartapur second-class single-storied rest-houses have been completed; the Chaumukha rest-house is well in progress, and materials have been collected for another at Pakri (Gopi-kandh). Mr. Campbell has made excellent use of the materials at his command. In Gorakhpur station and district, owing to the scarcity of straight matured timber, regular sál scantlings are little used in roofs; but as there are plenty of sál poles and some crooked trees remaining, an excellent roof is made in the following manner:—The skeleton of the roof is formed of poles about 1′ apart; over these are spread a layer of chips 1′ or 2′ in length and about 1 square inch or less in cross section, cut from the dead trees that have been lying for years in the forests and which are as hard as ivory and with nothing for insects to eat in them; over this layer of chips is spread a layer of clay and then the small cheap tiles of the district. If the poles have only been properly soaked, to extract all sugary and starchy matters, a roof made in this manner is fire-proof, insect-proof, light and inexpensive. I am now, where thatches have become old and unserviceable in other divisions, having them replaced with the "Gorakhpur roof."

56. *Wells; circle.*—Ten masonry drinking wells were completed, also 2 small drinking wells for fire-watchers; 7 drinking wells are in progress and one large well for irrigation for the garden at Dudua; the wells in the circle were also cleared out where necessary.

57. *Wells; divisional.*—(*a*) In Pilibhít one small well was made for the use of fire-conservancy and other watchers, 10 wells were cleared out. (*b*) In Bhira 3 new wells were completed, as also a small well for the fire-conservancy establishment. (*c*) In Kheri 5 new wells—4 in the new Kusumbha fire block and 1 at the Bankatti rest-house—were completed; 4 new wells have been commenced; one (a large well) for irrigation at Dudua on the low ground, the water of which will be raised to the high ground. The low ground is the old bed of the Sarda, and at a small depth water sufficient for constant irrigation of 2 or 3 acres is found in the sand; but on the high ground adjoining at the same level water could not be obtained in sufficient quantities for irrigation without choking up the well with silt. The pit has also been dug for the well at the Salukapur rest-house and materials collected; 3 old wells were cleared. (*d*) In Bahraich 2 new wells were in progress and 4 wells were cleaned out and repaired. (*e*) In Gonda the Chandanpur well was completed. (*f*) In Gorakhpur a new well was completed at Banspar rest-house and another commenced at Chaumukha.

CHAPTER IV.

YIELD AND WORKING.

58. *Yield of the circle.*—The yield and working is shown in the summary as below in the form ordered by the Government in its para. 2 of Resolution No. 317, dated 27th March, 1883:—

Description.	Selection fellings, i.e., fellings of mature trees. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	Total. No.	C. ft.	Thinnings. By Government agency and total. No.	C. ft.	Clearances. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Grand Total. No.	C. ft.	Remarks.
Sál logs	2,438	184,052	...	...	2,438	184,052	...	...	...	...	...	...	...	...	...	...	2,438	184,052	Regular selection fellings: 2,500 trees were felled, but as turned out below: therefore not shown under this.
Sál logs	14,287	484,718	5,085	120,188	19,372	604,906	5,874	18,000	1,065	1,820	49,416	95,718	...	...	50,481	97,538	75,727	720,444	
Asna logs	119	5,189	2,941	92,385	3,060	97,574	273	1,100	...	...	27,092	109,194	...	...	27,092	1,09,194	30,425	207,868	
Siasu	98	2,416	47	734	145	3,150	...	...	...	...	6	158	...	...	6	158	151	3,308	
Dhao	...	...	...	..	...	...	...	...	230	230	3	6	...	...	233	236	233	236	
Kaim	...	...	4	186	4	186	...	...	...	...	...	...	...	...	...	...	4	186	
Haldu	...	...	101	1,330	101	1,330	...	...	...	...	...	...	...	...	...	...	101	1,330	
Mahua	...	...	222	4,541	222	4,541	85	4,000	...	...	...	...	...	...	...	...	307	8,541	
Kusum	...	...	55	2,700	55	2,700	...	...	...	...	824	5,238	...	...	824	5,238	879	7,938	
Jamun	...	...	809	25,356	809	25,356	...	...	...	...	424	2,968	...	...	424	2,968	1,233	28,324	
Asidh	...	...	30	619	30	619	...	...	...	...	14	98	...	...	14	98	44	717	
Miscellaneous ...	...	...	346	739	346	739	130,008	130,628	...	...	232,502	227,154	851,257	464,716	1,083,759	691,870	1,214,113	823,232	
Total ... 1882-83 ...	16,942	676,855	9,640	248,778	26,582	925,153	136,240	153,728	1,295	2,050	310,261	440,534	851,257	464,716	1,162,833	907,800	1,325,655	1,986,178	
Total ... 1881-82 ...	3,241	150,254	7,787	222,081	11,028	372,335	68,458	113,058	97	97	152,296	300,237	805,009	448,234	957,393	748,668	1,036,879	1,234,061	
Difference ... More ...	13,701	526,601	1,853	26,697	15,554	5,532,818	67,782	40,665	1,198	1,953	157,985	140,297	46,257	16,381	205,440	158,632	288,776	752,115	
Difference ... Less ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Sleeper operations in 1882-83.		More timber removed, but of less value.				Thinning operations were conducted as last year, but the increase is owing to sale of all trees on 45 acres to Mr. Deveria for Rs. 5,000.		More poles and dhao axles were felled than last year.		More timber poles and saplings sold than last year. Demand for fuel where railway is being made.								

NOTE—The villagers did no selection fellings or thinnings and the contractors did no thinnings.

(1)—DEPARTMENTAL OPERATIONS.

59. *Circle, selection fellings of regular working plan and for sleeper operations.*—Besides the regular selection fellings in Kheri (sanctioned at 2,500 mature sál trees, which were all cut, but of these 62 were found worthless to send to Bahramghát), this year was distinguished by the large amount of mature sál trees, 14,287, cut for sleeper operations; these trees are for the most part crooked or had been formerly tapped for resin (hereafter called ráled trees), which damaged their future growth and utility; these trees would not be felled in the regular selection fellings (in which the best are only taken), and their removal will be a source of benefit to the forests, as they were not improving and they were taking up the ground on which good young growth can be obtained: 119 asna trees and 98 sissu were also cut.

60. *Divisional; selection fellings of regular working plan and for sleeper operations.*—(*a*) Kheri: regular selection fellings, 2,500 sál, of which 62 were rejected; the 2,438 yielded 2,954 logs and pieces containing 184,052 cubic feet.

(*a*) Kheri : sleeper selection fellings,	8,712	sál, 63 of which were dead trees which yielded sleepers and 62 hollow boats.
(*b*) Bahraich : sleeper selection fellings,	987	sál trees which yielded sleepers, tops and slabs which are sold or remained to be sold.
(*c*) Gorakhpur : sleeper selection fellings,	4,581	Ditto ditto.
(*d*) Gonda : fellings (experimental),	7	sál which were sold to Executive Engineer, Gonda.
Total ...	14,287	

(*a*) In Bahraich 98 asna = 4,885 cubic feet, of which 76 logs were sent to Bahramghát.
(*b*) In Gonda 21 „ = 304 „ „ to Executive Engineer, Gonda.
(*c*) In Bahraich 98 sissu = 2,416 „ „ of which 76 logs were sent to Bahramghát.

61. *Sleeper operations.*—(*a*) In Kheri the operations have not been completed; some of the trees are still in the forests, some have been carted outside and to the bank of the Korialla, either to be cut up there or sent to Bahramghát for sleepers at the end of the rains. 86,246 sleepers were cut out of these trees and old stock at the Suthiana and Dudua depôts. (*b*) In Bahraich 18,379 sleepers were cut, the tops, but tends and slabs finding a market, which they do not in Kheri. (*c*) In Gorakhpur 11,943 sleepers, 3,374 scantlings of sorts, 3,695 ends, and 9,413 slabs were obtained; the sleepers will be rafted to Gorakhpur and the other parts sold locally. Of the sleepers obtained in Kheri about 27,000 will be carted direct to Bareilly, the remainder going by water to Bahramghát. The Bahraich sleepers are being carted to Bahramghát, and at the end of the year 4,209 sleepers had reached that depôt.

62. *Arrangements for sleepers with Patna-Bahraich Railway.*—Arrangements were first being made for sleepers for Patna-Bahraich Railway, but the arrangements fell through, as at the last moment the Chief Engineer insisted on their being cut from timber three years felled; but, fortunately, sleepers were required by others—some 50,000 for the Rohilkhand and Kumaun line, 55,000 for the Bareilly-Pilibhit line, and 25,000 for the State Railway Department, to be delivered at Cawnpore; so we have a market for all that we have cut, as besides the above, the Bengál North-West Railway wants 50,000 (6′ × 8″ × 4½″) and the State Railways can take another lac. Up to the end of March 140,091 were cut, including 23,523 at Bahramghát, generally from short or crooked pieces. Of these a number will have to be rejected on account of quality, and I am sorry to say that where the sawing was done by contract the sawyers in some cases must have included the width of the saw cut when marking out the timber,

or scrimped the stuff in order to get out more sleepers from the log, as many sleepers cut by them are undersized; part of this may be attributed to the shrinking in the hot weather, but not all; this will reduce the value of the sleepers. I have however ordered next season that the sleepers are to be cut full $4\frac{1}{2}'' \times 8\frac{1}{2}''$. In the new metre-gauge sleepers the size, 4" in depth, is too little, even if the measurement be full, as the spikes used with the new pattern flanged rail come to the very bottom of the 4" sleepers on the upper side and even pass $\frac{1}{4}''$ beyond the bottom on the lower or inner side, where the sleepers have to be shaped to give the rail a cant inwards.

63. *Thinnings.*—(a) These took place in Ramgarh and Tilkonia, Gorakhpur, where 550 acres were treated in the usual manner, the cost being Rs. 2,005-5-0 and the receipts Rs. 11,774-3-7 plus Rs. 4,026 due = Rs. 15,800-8-7. In this must, however, be taken the sale of all trees standing on 45 acres taken up by the railway, which were sold standing to a railway contractor for Rs. 5,000. There were cut also 5,874 sál ballas of about 3 cubic feet each, 275 asna about 4 cubic feet each, 85 large mahua about 47 cubic feet each, and 130,008 poles of about 1 cubic foot each.

64. *Clearances.*—In Bahraich 100 ballies were cut for Bahramghát; in Gonda 226 sál ballies and 739 koros, total 965, line clearings, were cut and will be disposed of locally; 230 dhao axles were cut and sold locally in Gonda.

65. *Outturn of timber and other produce cut and collected by Government agency.*—The following table shows the outturn of timber and other produce cut and collected by Government agency:—

Particulars.	Description.	1881-82.		1882-83.	
		Number.	Cubic feet	Number.	Cubic feet.
Selection fellings, dead, standing, crooked and ráled trees.	Sál logs	3,908	156,320	16,367	669,043
	Sissu	531	13,304	98	2,416
	Asna	154	7,392	120	5,247
	Dhao axles	97	...	230	230
	Sál poles	...	...	326	1,081
	„ koros	...	...	739	739
	Miscellaneous poles ...	168	...	31	68
Hollow trees 124, river, old stock,	Canoes	191	...	126	...
Conversion from selection and other fellings in the forests.	Sál sleepers ...	6,265	6,439	116,548	155,065
	„ scantlings ...	...	...	4,287	1,962
	„ pieces	...	...	54,181	134,048
	Sissu pieces ...	...	...	110	1,103
	Sál offcuts	...	...	9,413	18,826
Collections	Mahua flowers ...	1,311 maunds.		...	...
Conversions	Charcoal	1,010 ditto.		21 maunds.	
Drift and confiscated timber, forest and river.	Drift and confiscated timber.	1,447	...	3,509	10,226
	Charcoal	...	...	45 maunds.	
	Total No. ...	12,741	183,455	206,105	999,986
	Maunds ...	2,321	...	66	...

66. *Bahramghát saw mills.*—The table below gives a comparative statement of the work done by the saw mills during last and this year :—

Year.	Value of work done at old rates.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1881-82	11,977	8,700	3,277
1882-83	18,962	12,824	6,138

The cost was Rs. 14-9-4 per hundred cubic feet against Rs. 15-8-6 last year. This reduction was caused partly by sawing up sleepers in the machinery we got the use of from Messrs. Hormusji and Co., which is still in the building purchased by Government.

67. *Bahramghát depôt.*—The indents remaining to be completed at the close of the year amounted to 6,831 cubic feet; 36,921 cubic feet of new indents were received, of which 2,792 were cancelled, or a net amount of 34,129 cubic feet, making altogether 40,960 cubic feet; of this amount 36,227 cubic feet were executed during the year, leaving a balance to be completed of 4,733 cubic feet, of which 2,453 had been completed on the 24th June, 1883. The usual periodic auction sales took place of rejected timber and scantlings, which have kept the depôt clear. I have not yet been able to arrange for standard sizes of scantlings, but hope to do so when the exact dimensions of metre-gauge sleepers are finally decided on.

68. *Depôt transactions.*—The depôt transactions will be found in appendix C., as required by para. 3 of G. O. No. 317, dated 27th March, 1883.

69. *Stock.*—The abstract of form No. 65 given below shows the value of stock at the commencement and end of the year :—

Description.	*On hand at commencement of the year.*		*On hand at close of the year.*		*Difference in value.*	
	Number or quantity.	Value.	Number or quantity.	Value	In favour of the year.	Against the year.
		Rs.		Rs.	Rs.	Rs.
Timber ... ...C. ft.	562,441	2,83,324	699,373	3,37,013	53,689	...
Firewood and charcoal ...Mds.	272	69	66	7	...	62
Time stock ... ... No.	41	13,985	36	12,216	...	1,769
Dead stock, including buildings and furniture and canoes and boats .. .. No.	27,854	1,90,955	35,802	1,93,301	3,046	...
Total ...	...	4,87,633	...	5,42,537	54,904	...

70. *Explanation of stock.*—The timber stock has increased by Rs. 53,689. The old stock at Dudua and Suthiana depôts have been reduced by the sleeper operations; the logs were very old and unsound, being the leavings of several years; at the same time a number of logs lying in the forests in the Khairagarh sub-division of Kheri have been written off, it having been found that many of them had been sold to purchasers who had removed them; the remainder that are of any use will be utilized in the coming year for sleepers. The sleepers have been valued at one rupee a cubic foot in the forests and only at 12 annas a cubic foot at Bahramghát, the same as the rest of the scantlings.

71. *Correction in figures of Government statement, page 9, No. 109 of 2nd February, 1883.*—In the orders of Government, No. 109 of 1883, Resolution, Revenue (Forest) Department, dated 2nd February, 1883, page 9, there has occurred a clerical error in the value of dead stock at the close of 1881-82; the value should have been Rs. 1,94,255 instead of Rs. 1,80,255.

72. *Explanation of discrepancies as desired in para. 6 of G. O. No. 583 of 18th June, 1883.*—As desired in para. 6 of G. O., North-Western Provinces and Oudh, No. 583, dated 18th June, 1883, I beg to state that there was a balance (Rs. 3,26,552) of the value of all the stock at the close of 1880-81 (form No. 65), to which was added value of logs lying in the forests which were not shown in this form in former years; but under the rulings of the new edition of the Forest Department Code every kind of stock (after clearing all transactions shown in different forms of previous years) was brought on to stock, which roughly estimated amounted to Rs. 1,32,898, making a total of Rs. 4,59,450; of this Rs. 70,257 were shown in form No. 65, Rs. 2,73,198 in form No. 65A., and Rs. 1,16,005 in form No. 65B., giving a balance of Rs. 4,59,450 at the commencement of the year 1882-83.

(2)—Removal of Produce by Purchasers.

73. *Circle; mature trees.*—Some 9,640 mature trees were removed by contractors; of these about half were sál (a quarter dead and a quarter green, principally ráled trees); three-tenths asna trees, which it is good policy to remove, otherwise they will usurp the place of sál in the forests; the remaining two-tenths being principally miscellaneous trees which it is also proper to keep down in number, at the same time making money out of them.

74. *Selling trees standing.*—Regarding the selling the material *in situ*, I believe this is an object to be aimed at in the future; but for the present I do not think, in the case of the Oudh Circle, that it would be either politic or practicable. The purchasers we have to deal with are usually poor men who borrow of mahajans at extravagant rates and have to make very large profits to cover their expenses; they cannot run heavy risks; with dead sál trees little or no risk is run, as it is only the sound ones they select and remove; in purchasing standing trees they must buy them very cheap to cover the risk incurred. The amount of supervision they would require would be very great; but when we cut over most of our bad stuff for sleeper operations and have got a sound crop, purchasers might be allowed in to purchase marked trees in certain well-defined areas. I believe the experience in other forests and provinces is that purchasers have a dangerous custom of felling unmarked trees instead of the ones marked for them, particularly when the former happen to yield better timber and the supervision is not good and conscientious.

75. *Divisional; mature trees.*—The form below gives the divisional detail of the mature trees removed by purchasers, being explanatory of the second column of statement under para 58:—

Description.	Kheri.		Bahraich.		Gonda.		Gorakhpur.		Total.	
	No.	C. ft	No.	C. ft.	No.	C ft.	No.	C. ft.	No.	C ft.
Sál	783	25,193	1,529	34,337	205	4,058	2,575	56,600	5,085	120,188
Asna	628	41,343	188	8,712	547	10,620	1,578	31,710	2,941	92,395
Sissu	...	...	...	...	47	784	...	...	47	784
Kann	...	...	4	186	...	...	...	...	4	186
Haldu	...	...	...	...	100	1,380	1	50	101	1,330
Mahua	...	...	2	50	4	81	216	4,410	22	4,541
Kusum	...	...	55	2,700	...	...	...		55	2,700
Jamun	...	...	286	14,285	82	1,711	441	9,360	809	25,356
Ajidh	...	...	3	79	...	...	27	540	30	619
Miscellaneous	...	...	346	739	...	...	...	...	346	739
Total ...	1,411	66,536	2,406	61,088	98	18,484	4,838	102,670	9,640	248,778

(*a*) In Kheri were cut 2 green and 781 dead sál trees and 628 green asna that wanted removing, but in the next season we shall work out probably 2,500 trees for

sleepers for state railways. (*b*) Bahraich : most of the sál, 1,301, were dead trees and some 221 were green trees, cut in Section II., Nishangarah, where they could be spared and for which we get a high price; 130 green and 18 dead asna trees were also sold; 286 jaman trees and a small number of miscellaneous were removed. Kusum is used for sugar mills, but in time I expect the old system of pressing will be superseded by the new Behea mills, the wood work of which is made of sál. (*c*) In Gonda the sál were dead and asna green ; there is a good quantity of the latter in the forests ; a few miscellaneous trees were also sold. (*d*) In Gorakhpur the green sál trees sold were mostly ráled trees in the northern forests ; the asna was green ; the other miscellaneous trees were removed from the forests in the middle of the division.

76. *Clearances; circle and divisional.*—The table below gives divisional detail for the small trees removed by purchasers (contractors) and the total for the circle:—

Description.	Pilibhit.		Bhira.		Kheri.		Bahraich.		Gonda.		Gorakhpur.		Total.	
	No.	C.ft.	No.	C.ft.	No.	C. ft.	No.	C. ft	No.	C. ft.	No.	C. ft.	No.	C. ft.
Sál	7,848	3,830	1,626	2,353	457	1,371	19,885	31,506	...	...	19,600	57,658	49,416	95,718
Asna	...	...	...	...	...	...	53	212	...	...	27,039	1,08,992	27,092	109,194
Sisan	...	...	...	...	...	...	6	158	...	...	...	...	6	158
Dhao	...	...	...	...	...	...	...	...	3	6	...	...	3	6
Kusum... ...	...	...	106	212	...	...	...	...	...	...	718	5,026	824	5,238
Jamun... ...	...	...	...	...	...	...	...	...	...	...	424	2,968	424	2,968
Asidh	...	...	...	...	...	...	...	...	...	...	14	98	14	98
Miscellaneous ...	3,024	1,906	1,753	439	192,881	192,629	3,206	6,327	29,916	22,271	1,663	1,562	232,502	2,27,154
Total ...	10,872	4,736	3,485	2,904	193,338	194,000	23,209	40,213	29,919	22,277	49,458	176,314	310,281	440,534

The poles and saplings removed by purchasers amount to 440,534, which must be taken as an estimate only, the small trees being sold by the cart-load, donkey-load, and head-load ; about a quarter was sál, a quarter asna, and the rest was miscellaneous. The sál in all cases were either line fellings or dead and dying trees, the rest were green. As mentioned in para. 73, we want a certain amount of clearing out of asna in order not to let it get the lead of sál, and in the same way it is good for the benefit of the forests that a good deal of the miscellaneous stuff should be weeded out; this however must not be carried to excess, but the small trees taken out at present by purchasers only equals about one tree of one cubic foot to the acre, 440,534 to some 500,000 acres of tree forest ; the whole area of the forest being 1,090 square miles =697,298 acres, which includes grass grass lands.

(3)—Free Grants of Forest Produce.

77. *Produce given gratis to villagers.*—About the same amount of cubic feet was given gratis to villagers ; the items as detailed by cart-loads, &c., will be found in apppendix B. and are estimated as below :—

Bhira	...	...	18,291 trees	= 14,453 c. feet.
Kheri	...	...	293,050 „	= 163,282 „
Bahraich	...	...	504,951 „	= 24,090 „
Gonda	...	...	24,965 „	= 32,891 „
Pilibhít	...	...	10,000 „	= 5,000 „ (estimated).
	Total	...	851,257 „	= 464,716 „

These are used chiefly in making frame-works for thatches, both for the sides and roofs of houses; though it seems a large number, it is nearly only about 2 saplings of the inferior kind, equalling less than one cubic foot per acre of tree forest : besides this, large quantities of fuel, grass, and withies, &c., were given free to the people.

I have not been able to get detail for Pilibhít. The Collector thinks it would be troubling the people to have come to the forest department for passes; but I think that Government might order that the people should come with indents to the forest department, as it is not very much trouble to them, considering that they get the produce free, and by this the annual requirements of the people would in time be ascertained and probably waste of material averted.

(4)—Summary of Produce removed from the Forest.

78. *Produce of the circle.*—The total yield of produce of all kinds is given below :—

Produce.	Total yield, 1881-82.		Total yield, 1882-83.		Difference.				Remarks.
					More.		Less.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
		Rs.		Rs.		Rs.		Rs.	
Timber, c ft. ...	372,385	137,727	925,153	382,163	552,818	244,436	...	...	More timber felled for sleeper operations.
Saplings „	113,058	12,916	153,723	15,800	40,665	2,884	...	...	Increase is owing to sale of all trees standing on 45 acres to Mr. Deveria, contractor in Gorakhpur, for Rs. 5,000.
Poles, &c., No. ...	957,393	48,141	1,162,833	141,597	205,440	93,456	...	...	
Bambus, scores ...	5	8	12	15	6	7	...	...	
Firewood, Mds.	*160,841	8,023	†188,464	83,656	27,623	75,633	...	...	*54,000 cubic feet of timber converted into firewood and its value, Rs. 5,656, as shown in form No. 63 under firewood, is included under saplings in this return.
Charcoal „	32,964	3,249	32,172	2,971	...	...	792	278	†130,000 cubic feet of timber converted into firewood and its value, Rs. 13,082, has been included under saplings.
Minor produce „	...	37,419	...	40,662	...	3,243	...	...	
Grazing dues „	...	33,958	...	36,511	...	2,553	...	...	More cattle grazing than last year.
Confiscated and drift timber, c. ft.	1,447	2,689	10,676	9,021	9,229	6,332	...	...	More wood than last year; besides this, the quantity and amount of timber collected by contractors in Bahraich has not been included in this, as the quantity was not known.
Total ...	...	284,130	...	712,396	...	428,266	...	...	

The quantities are given in cubic feet, numbers and maunds, which being estimated for and added together as below give the following results :—

	C. ft.
Timber	925,153
Saplings	153,723
Poles	907,300
Bambus	100
Firewood	188,464
Charcoal*	128,688
Total	2,303,428

This only amounts to about 4½ cubic feet per acre for the area covered with tree-forest. The causes of increase on the yield of last year are given in the column of remarks.

I roughly calculate that in unsound timber it takes 3 cubic feet in the rough to make 1 cubic foot of sawn timber, that would give 4 cubic feet per sleeper; we sawed 140,000 sleepers; this will give 560,000 in the rough, balanced by some of the sleepers having been cut from old stock on the one hand, and on the other hand there being timber remaining to be sawn up. The increase in small timber is greatly owing to increased fuel operations in Gorakhpur owing to the wants of the railway contractors in preparing materials, bricks, lime, &c.

* Note—It is calculated that it takes 4 maunds of wood to make 1 maund of charcoal.

79. *Catechu.*—In this statement I have not been able to give the number of trees cut for catechu, but I hope in time to be able to give a pretty accurate estimate; the dues from catechu amount to Rs. 18,599 at 9 annas a pot; this equals 33,045 earthen pots or *handies* capable of containing about 3 gallons of water.

80. *Thickened bark juice for tanning.*—I hope to be able in time to get the waste bark of trees boiled down in the same way as catechu is. Mr. Rebsch has had some juice of sál bark thus prepared, and I shall have some sent to the Government Tannery, Cawnpore, and the Director of Agriculture, to ascertain its value as a tanning material; it is probable asna will give more tannic acid, it being used in preference to almost any other bark by the village tanners. The preparation of the extract is necessary, as the carriage of the raw material to distant markets would be prohibitive.

81. *Yield; more removed by purchasers, but less money obtained.*—Though the materials taken by contractors have been more than in 1881-82, the material has fetched less, being generally of a less valuable character and much of it only fit for fuel.

82. *Statistics per acre.*—In compliance with instructions in para. 33 of Resolution No. 109 of 2nd February, 1888, a table has been made out, but till we get more accurate returns I do not think much importance should be attached to it.

In column 5, 2·84 is from taking the whole forests, grass lands included. I think the expenditure should be taken only for the two first great heads of expenditure, *viz.*, timber operations and collections of revenue, otherwise forests that spend nothing on improvement show unfairly with forests which are carefully protected and everything done that can be done for their improvement.

Appendix.

Division.	Area in acres.	Yield of timber, cubic feet.	Kind of tember.	Yield of timber per acre in cubic feet.	Total receipts.	Receipts per acre.	Total expenditure.	Expenditure per acre.	Total surplus or deficit.	Ratio of expenditure to receipts per cent.	Surplus per acre.
					Rs.		Rs.	Rs.	Rs.		Rs.
Pilibhit ...	67,680	9,786	Sál and miscellaneous.	11	8,308	·09	27,454	·31	—19,146	330·	...
Bhira sub-division,	104,960	17,447	Ditto ditto ...	·16	6,084	·05	10,819	·10	—4,735	178·	...
Kheri ...	168,320	930,029	Sal, asna, miscellaneous	5·52	2,36,612	1·40	1,81,702	1·07	+54,910	77·	·32
Bahraich ...	164,480	405,622	Sal, asna, sissu miscellaneous.	2·46	58,845	·35	25,702	·15	+33,143	43·	·20
Gonda ...	98,256	75,825	Sal, asna, sissu, dhao, miscellaneous.	·77	19,655	·20	13,421	·13	+6,234	68·	·06
Gorakhpur ...	73,600	547,532	Sal, asna, miscellaneous.	7 43	54,926	·74	29,609	·40	+25,317	54·	·34
Total ...	697,298	19,86,191	...	2·84	3,84,430	·55	2,88,707	·41	+95,723	75·	·13

CHAPTER V.

FINANCIAL RESULTS.

83. *Financial results of this and past year.*—The financial results of the year as compared with those of the previous year are as follows:—

Receipts.		Expenditure.		Surplus.	
1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3,11,145	3,84,430	2,24,506	2,88,707	86,639	95,723

84. *Reasons for the same.*—The surplus is more than that of last year, owing partly to the sale of sleepers and partly to the revenue from the bridge of boats credited to Revenue, V., though there was a falling off in timber removed by purchasers, some Rs. 9,000.* The adjustment with the State Railway Department was as follows:—the Department paid for 34,285 sleepers, equal to Rs. 59,928-12-0 at Rs. 1-12-0, at the Kheri forest depôt, and 10,000 sleepers at Rs. 2, equal to Rs. 20,000, at Bahramghât; total Rs. 79,998-12-0. This sum was paid as the price of the sleepers, less the carriage to the place of delivery; some 100,000 sleepers remain, the price of which will be realized in 1883-84. The sleeper operations cost about Rs. 68,000, but the price of carriage has to be added on to the price of sawing before their value can be realized.

85. *Circle; receipts for this and past year.*—The receipts are given under the different heads :—

Year.	I.	II.	III.	IV.	V.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1881-82	1,22,303	1,81,846	4,314	...	2,682	3,11,145
1882-83	2,01,959	1,72,447	3,901	...	6,123	3,84,430

The excess is Rs. 73,215 owing to the adjustment for sleepers referred to above. There is still little demand for timber for public works, building branch.

86. *Divisional; receipts and expenditure.*—The divisional receipts and expenditure are herewith given :—

Division.	Receipts.		Increase or decrease during the year.	Expenditure.		Increase or decrease during the year.
	1881-82.	1882-83.		1881-82.	1882-83.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	...	...	...	17,863	20,578	+2,715
Pilibhît	8,879	8,308	—571	12,586	25,167	+12,581
Kheri, including Bhira and Bahramghât.	1,60,910	2,42,696	+81,786	1,37,024	1,83,376	+46,352
Bahraich	60,337	58,845	—1,492	27,947	21,129	—6,818
Gonda	21,117	19,655	—1,462	10,232	11,135	+903
Gorakhpur ...	59,902	54,926	—4,976	18,854	27,322	+8,468
Total ...	3,11,145	3,84,430	+73,285	2,24,506	2,68,707	+44,201

87. *Explanation of differences.*—(*a*) In Direction the increased expenditure is owing to the promotion of Conservator. (*b*) In Pilibhît the decrease in revenue is owing to less revenue from fuel, and the increase in expenditure is owing to increase of Mr. Ponsonby's pay, which lesser pay in the past year was charged to Bhira. (*c*), (*d*), (*e*) Kheri, Bhira, and Bahramghat: the increase in revenue is owing to sale of sleepers, and the increase in expenditure is also owing to the sleeper operations being carried on vigorously and also to the erection and up-keep of the bridge of boats at Srinagar. (*f*) Bahraich: the decrease in revenue is owing to less revenue having been received from minor produce than last year; there was an increase in expenditure A. owing to the sleeper operations being carried on, no cash credit having been obtained for the 18,379 sleepers prepared and ready in the

* NOTE.—Some Rs. 4,000, however, is to be paid.

forests, which would have been about Rs. 30,000; the sleepers are to be conveyed to the place of sale for about 8 annas each. There was less expenditure in other subheads of "A."; there was also a decrease in expenditure "B." owing to Mr. Dansey's absence. (*g*) Gonda: the decrease in revenue is owing to less timber sales than last year and less minor produce was sold, Mr. Rebsch being at Akonah and Dehra for more than half the year. The increase in expenditure is owing to increase of Mr. Rebsch's pay. (*h*) Gorakhpur; the decrease in revenue is owing to the outstandings of Rs. 4,467-13-10 on account of the year; besides this, less sales of large trees owing to the timber being worked up into sleepers that would have been sold to purchasers; the extra expenditure was caused by sleeper operations.

88. *Circle; expenditure "A." for this and past year.*—The sums under A., "Conservancy and works," and B., "Establishment," are thus detailed:—

"A."

Year.	I. Timber and other produce removed from forests by Government agency	II. Timber and other produce removed from forests by consumers or purchasers.	III. Confiscated, drift and waif wood.	IV. Revenue from forest not managed by Government.	V. Rents of leased forest, etc.	VI. Live and dead stock.	VII. Communications and buildings.	VIII. Demarcation, improvement, and extension of forests.	IX. Miscellaneous.	Total.
	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.	Rs.
1881-82 ...	68,869	8,683	438	...	...	7,047	36,059	18,401	1,250	1,40,747
1882-83 ...	1,34,910	8,730	339	...	...	8,953	31,538	19,789	1,043	2,05,302
	+66,041	+47	—99	...	..	+1,906	—4,521	+1,388	—207	+64,555

89. *Causes of difference.*—A.I., sleeper operations; A.VI., new boiler at Bahramghát; AVII., less spent on buildings owing to officers being otherwise occupied; A.VIII., increase in plantations and cultural operations.

90. *Circle; expenditure "B." for this and past year:*—

"B."

Year.	I. Salaries.	II. Travelling allowances.	III. Contingencies.	Total.
	Rs.	Rs.	Rs.	Rs.
1881-82	66,706	12,675	4,378	83,759
1882-83	66,743	12,196	4,466	83,405
	+37	—479	+88	—354

91. *Cause of difference.* "*B.I.*"—Though there was an increase in officers' pay owing to the reorganization of the 3rd September, 1882, Mr. Dansey was away the whole year and Mr. Pinder was away nine months.

"*B.II.*"—Less drawn owing to the absence of Messrs. Dansey and Pinder.

92. *Cash profits of the year.*—The cash profits of the year were as below:—

	Rs.
Receipts were	3,84,430
Expenditure was	2,88,707
Giving cash surplus	95,723

93. *Circle account of receipts and the three great heads of expenditure.*—To show the results of timber operations, revenue collections, and charges for improvement, he following statement is given :—

Particulars.	Amount.	
	1881-82.	1882-83.
Receipts from timber and other produce removed from forest by Government agency.	1,22,951	2,02,863
Deduct expenditure on account of above, including share of establishment ...	89,582	1,59,127
Leaves a profit on timber operations of	33 369	43,736
Other receipts were	1,88,194	1,81,567
The cost of revenue collections, with share of establishment, come to ...	62,822	59,414
Leaving a surplus of	1,25,372	1,22,153
And a total clear profit from all sources of	1,58,741	1,65,889
From which must be deducted cost of works of conservancy and improvement, with share of establishment.	72,102	70,166
Leaving a cash surplus of	86,639	95,723

94. *Divisional account of receipts and the three great heads of expenditure.*—(*a*) Pilibhit: the receipts from forest produce is given below; they are slightly less than what they were last year; the only revenue obtainable at present is from dead and inferior trees, grass and minor produce :—

	Rs.
Timber	1,587
Firewood	2,234
Charcoal	1,743
Grazing dues	826
Grass	363
Drift timber	362
Minor produce	984
Miscellaneous	208
Total ...	8,308

The revenue is less by Rs. 571 than last year, the deficit being Rs. 16,859 against Rs. 5,691 of last year, owing to the whole of Mr. Ponsonby's pay being charged to this division.

The financial figures stand as below :—

	Rs.	a.	p.
A.II.	2,916	0	11
½ VI.	477	14	6
½ VII.	3,182	7	3
½ IX.	31	7	8
½ B.	6,157	4	3
14/27 Direction charges ...	1,143	3	6
	13,908	6	1
½ A.VI.	477	14	6
½ VII.	3,182	7	4
VIII.	2,553	2	9
½ IX.	31	7	7
½ B.	6,157	4	2
14/27 Direction charges ...	1,143	3	5
	13,545	7	9

	Rs.
Receipts	8,308
Cost of revenue collections, with share of establishment, was	13,908
Giving a deficit of	5,600
Against which must be set cost of works of formation, improvement and protection of forests, with share of establishment	13,545
Giving a total deficit of	19,145

All pioneer works of improvement are nearly finished; it is hoped that some revenue will soon be obtained from the outturn of coppicing operations. (*b*) Bhira subdivision: the revenue was derived from the following sources :—

	Rs.
Timber	738
Firewood	325
Grazing dues	3,149
Minor produce	1,872
Total ...	6,084

There is a decrease of Rs. 324-10-10 compared with last year, which is principally in grazing dues. The financial figures are exhibited in the following table:—

	Rs.	a.	p.
A. II.	1 808	11	5
½ VI.	107	10	10
½ VII.	1,295	3	7
⅔ IX.	76	8	5
½ B.	615	5	1
14/27 Direction charges ...	1,143	3	6
	5,046	10	10
½ A. VI	107	10	9
½ VII.	1,295	3	6
A. VIII.	2,535	4	3
½ IX.	76	8	4
½ B.	615	5	1
14/27 Direction charges ...	1,143	3	5
	5,773	3	4

	Rs.
Receipts	6,084
Cost of revenue collections, with share of establishment, was	5,047
Leaving a surplus of	1,037
Against which must be charged cost of formation, improvement and protection of forests, with share of establishment ...	5,773
Giving a deficit of	4,736

The capital value of the forests is increasing, and it is hoped that when the railway is opened between Pilibhit and Sitapur the forests will yield a surplus from thinnings.

(c) Kheri (trans-Sarda):—

	Rs.
The revenue from timber removed by Government agency was ...	62,795
Other receipts were	35,109
Total ...	97,904

This is more than last year owing to the sale of some of the sleepers being credited direct to the Kheri division; though the other timber sales were less, as the dead timber in the forest is scarcer and no timber was purchased by the Gun Carriage Agency.

The following table shows the financial figures of the Kheri division (trans-Sarda) and its depôt, Bahramghát:—

	Rs.	a.	p.
A. I.	1,00,002	11	5
½ VI.	975	13	11
½ VII. ...	4,854	11	5
½ IX.	231	4	0
½ B	6,582	0	3
2/27 Direction charges...	1,524	5	0
	1,14,170	13	11
Whole A. and B., Bahramghat charges ..	31,698	5	11
2/27 Direction charges...	2,286	7	0
	33,984	12	11
	1,48,155	10	10
A. II.	1,428	3	0
A. III.	252	10	10
½ VI	975	13	11
½ VII.	4,854	11	4
½ IX.	231	4	0
½ B.	6,582	0	3
2/7 Direction charges ...	1,524	4	0
	15,848	15	4
½ A. VI.	975	13	10
½ VII	4,854	11	5
VIII. ...	3,530	1	1
½ IX. ...	231	4	0
½ B.	6,582	0	2
2/7 Direction charges ...	1,524	5	0
	17,698	3	6

	Rs.
Receipts from timber removed by departmental agency, Kheri ...	62,795
Ditto ditto, Bahramghat ...	1,38,708
	2,01,503
Kheri expenses and whole of Bahramghát	1,48,155
Leaving a profit on timber operations of	53,348
Other receipts were	35,109
Cost of revenue collections, with share of establishment, was ...	15,849
Leaving a profit of	19,260
	53,348
Giving a total clear profit of ...	72,608
From the whole must be deducted the cost of works of improvement and conservancy, with share of establishment ...	17,698
Leaving a net surplus of ...	54,960

If, however, we take the Bhira sub-division of Kheri into account, the surplus is reduced by Rs. 4,736 = Rs. 50,174.

(*d*) Bahraich division : the receipts under I., timber, were Rs. 39-3-8, from sale of 2 sissu logs, and Rs. 30 on account of sale of one canoe, total Rs. 69-3-8, which is less than last year owing to less fuel being sold under Receipts, I., and though 18,379 sleepers were sawn and ready stacked in the forest, they were not sold during the year, otherwise the revenue would have been increased by about Rs. 30,000.

	Rs.	a.	p.
A. I.	3,839	4	2
II.	1,912	2	7
½ VI.	342	0	8
½ VIII.	847	2	5
½ IX.	33	5	3
½ B.	4,397	15	5
2/7 Direction charges ...	2,286	6	11
	9,819	1	3
½ A. VI.	342	0	8
½ VII.	847	2	4
VIII.	4,136	13	0
½ IX.	33	5	3
½ B.	4,397	15	5
3/27 Direction charges...	2,286	6	11
	12,043	11	7

	Rs.
The receipts from timber removed by Government agency were,	69
Deduct expenditure under A. I., timber operations	3,839
Giving a deficit of	3,770
Other receipts were... ...	58,776
The cost of revenue collections, with share of establishment, was,	9,819
Giving a profit of	48,957
Deduct deficit under timber operations	3,770
Leaving an actual profit of ...	45,187
Against which must be charged the cost of works of improvement and conservancy, with share of establishment ...	12,044
Leaving a surplus of ...	33,143

(*e*) Gonda : the receipts under timber, I., removed by Government agency, were as below :—

		Rs.	a.	p.
Sale of 7 logs sál and 21 asna to Executive Engineer, Gonda	... ...	119	5	3
	... ...	152	0	0
		271	5	3
Sale of 230 dhao axles	... ...	126	10	0
	Total	397	15	3

	Rs.	a.	p.
A. I.	121	4	0
II.	382	3	5
III.	56	0	0
½ VI.	295	9	3
½ VII.	1,484	2	10
½ IX.	2	8	1
½ B.	3,292	2	3
1½/27 Direction charges...	1,143	3	6
	6,655	13	4
½ A VI.	295	9	3
½ VII.	1,484	2	9
½ VIII.	426	5	0
½ IX.	2	8	0
½ B.	3,292	2	2
1½/27 Direction charges...	1,143	3	5
	6,643	14	7

	Rs.
The receipts from timber removed by Government agency were...	398
Deduct cost of timber operations,	121
Leaving a surplus on timber operations of	277
Other receipts were	19,257
The cost of revenue collections, with share of establishment, was,	6,656
Leaving a profit of	12,601
	277
Giving a total profit of ...	12,878
From which must be deducted the cost of works of improvement and conservancy, with share of establishment	6,644
Leaving a surplus of ...	6,234

(f) Gorakhpur: the revenue realized from timber, &c., removed by Government agency, was—

	Rs.	a.	p.
542 sál hallis	142	4	8
12 boats	760	0	0
21 maunds charcoal	3	0	0
	905	4	6
Deduct outstanding	—12	2	9
Total	893	1	9

As shown in the summary of revenue, no sleepers were sold during the year, though 11,943 sleepers were got ready in the forests.

	Rs	a.	p.
A. I.	7,011	15	7
II.	283	0	4
½ VI.	359	11	5
½ VII.	1,136	4	8
½ IX.	31	3	0
½ B.	5,182	7	5
14/27 Direction charges...	1,143	3	6
	8,135	14	4

	Rs.
Receipts from timber removed by Government agency were ...	893
Deduct cost of timber operations,	7,012
Giving a deficit of	6,119
Other receipts were	54,033
The cost of revenue collections, with share of establishment, was,	8,136
Leaving a surplus of ...	45,897
Deduct deficit under timber operations of	6,119
Leaving actual profit of ...	39,778
From which must be deducted cost of works of conservancy and improvement, with share of establishment	14,461
Leaving a surplus of ...	25,317

	Rs	a.	p.
½ A. VI.	359	11	4
½ VII.	1,136	4	7
VIII.	6,608	0	4
½ IX.	31	3	0
½ B.	5,182	7	4
14/27 Direction charges ...	1,143	3	5
Total ...	14,460	14	0

The receipts from sleepers sawn will come in 1883-84.

95. *Profits of the year with assets.*—The following table shows the estimated profit of the year's operations, taking assets into consideration in the form desired by the Local Government :—

Particulars.	*Amount.* Rs.
Receipts of the Department during 1882-83	3,84,430
Expenditure	2,88,707
Surplus ...	95,723
Value of timber at commencement of year	3,47,553
Ditto at close of the year	5,95,340
Difference in favour of the year	47,787
Total surplus ...	1,43,510
Value of live and dead stock at commencement of the year ...	1,40,080
Ditto ditto at close of the year	1,47,197
Difference in favour of the year	7,117
Total surplus ...	1,50,627
Deduct—	
Amount of revenue realized on account of previous years ...	1,764
Balance ...	1,48,863
Add outstandings of the year	44,124
Total ...	1,92,987
Deduct—	
Outstanding at commencement of the year...	31,717
Balance, showing actual profits of the year	1,61,270

96. *Value of free produce.*—In appendix B. will be found detail of produce given free to the privileged villagers in the Kheri, Bhira, Bahraich, and Gonda divisions; and from these figures, together with the reduced grazing rates to privileged villages and free grazing to numerous "tharus," I estimate, at the very low rates of royalty, more than one lac of rupees of forest produce was given away during the year.

97. *Outstandings.*—The outstandings due to the Department on account of revenue are Rs. 44,124; of this Rs. 15,901 are irrecoverable on account of grazing dues in the Bahraich division for former years; application has been made to Government to write this amount off to profit and loss; the rest, Rs. 28,223, is realizable, Rs. 11,513 being due by the Department of Public Works.

CHAPTER VI.

GENERAL REMARKS.

98. *Planking for opium chests.*—It took me a long time to find out exactly what the requirements of the Patna Opium Department were, and it was only at the end of the year that I was able to send specimen planks for 100 chests to Patna; but as they had been sawn in the hot winds and could not be properly and slowly seasoned, they were not so good as what could be sawn if proper arrangements were entered into: it would be an economical arrangement if in sawing up sleepers we were to have a contract for opium planks, for the longest planks being 3′ 1″, by sawing our logs into 6′ 2″ lengths, that is, 3′ 1″ × 2, there would be much stuff that could be utilized for opium planks after sawing out the solid parts for sleepers; but there seems to me to be a prejudice against Oudh sál by the medical man who is the Principal Assistant, and by the Engineer in charge of the sawing works at Patna; but if the Patna agency will not take the planking, I think that the agency that is in the North-Western Provinces at Gházipur might be got to take it; it would save an immense amount of mango wood being used for opium chests, allowing the wood to be used for other industries; besides, though the cost to the opium agency might be more than mango chests, it would in the end be a saving to Government, which would really only pay for the conversion and carriage of the material, any profit returning to itself.

99. *Of the controlling staff, all officers have received promotion except Babu Kanhya Lal.*—All the officers but Babu Kanhya Lal and Mr. Pinder, who was away on leave, obtained a step in rank during the year, but Mr. Pinder has since obtained his step on return to work

100. *Controlling staff; particulars.*—(*a*) Mr. Ponsonby, promoted from Rs. 700 to Rs. 800, has worked well, having nearly completed the pioneering works in Pilibhít and Bhira; he was successful with his fire-conservancy.

(*b*) Mr. Allan, promoted from Rs. 500 to Rs. 650, has had to bear the brunt of the sleeper work, besides extra work on the Nipal frontier and the erection of the bridge of boats; the work was too much for one man to perform efficiently, but Mr. Allan has done wonders with the means at his disposal. Notwithstanding the great number of men whose presence was necessitated in the forests owing to sleeper work, by good arrangements and constant care he has prevented a single acre from being burnt in one of the most difficult, if not one of the largest, areas of fire-conservancy entrusted to a single officer.

(*c*) Mr. Campbell, now made an Assistant Conservator, not only carried on works of improvement in a very satisfactory manner, having shown great skill in fire-conservancy and building and special aptitude for plantation work, gaining a success which I believe to be almost unparalleled in dealing with sissu and other plants without canal irrigation, he also carried on sleeper operations and revenue work with economy and with a good outturn.

(*d*) Mr. Rebsch, now Officiating Assistant Conservator, not only demarcated and made valuable experiments in the Kapurthálá estate, but conducted his other duties with ability.

(*e*) Mr. Pinder, who was only a short time in Bahraich, has done his work well. He has been appointed Officiating Assistant Conservator since the close of the year.

(*f*) Mr. Battie, now Officiating Assistant Conservator, held charge of the Bahraich division and conducted the sleeper operations successfully and economically, helped the district officer with the Nepal frontier line and did other good work.

(*g*) Babu Kanhya Lal conducted the works economically and efficiently; besides supplying the usual indents, he prepared about 23,000 good metre-gange sleepers; he has passed the higher standard in the vernacular and obtained the lower standard certificate in surveying; and there is now no reason that he should not reap the reward of his merit.

101. *All Assistant Conservators and Sub-Assistant Conservators fit to take charge of divisions, and eligible for promotion.*—All the Assistant Conservators in this circle are eligible for promotion; they are all competent to hold charge of a division, and, in fact, on the 31st March last they have held charge of divisions as follows:—

Mr. Campbell,	2 years	6	months,
„ Rebsch,	4 „	10	„
„ Pinder,	1 year	6	„
„ Battie,		10	„
Babu Kanhya Lal,	4 years	11	„

and while in charge of their divisions they have shown themselves able and trustworthy.

102. *Forest subordinate staff.*—Of the subordinate staff, Ranger Amanat-ulla Khan of Gonda; Hussain Shah, Motipur, Bahraich; Jagdeo Singh, Forester of Gorakhpur, have done the best work. Rangers Kasim Khan of Khairigarh, Kheri; and Dabi Prasad of Bhinga, Bahraich, have done good service, but not in the exemplary way that the others have. Babu Raghunath Pathak, formerly of the office establishment, but now a Ranger, has shown his ability at Delfra and his thoroughness in practical work in Gorakhpur. Forester Mubarik Ali was tried as a Ranger, but found wanting.

103. *Office staff.*—Of the office establishment, my head clerk, Babu Raghuber Dayal Bajpai, and 2nd clerk Babu Jaidatt Joshi, have worked hard and steadily, and so have Babus Bankey Lal and Daulat Rai in Kheri, though the enormous amount of work thrown on them by the increase of timber operations has caused them sometimes to be late in their accounts.

104. *Forest and office staff generally have done well.*—As a whole the Forest and office establishment have worked very well indeed, there having been among a large number of officials very few cases of proved misdemeanour.

105. *Health.*—Mr. Pinder went on leave (medical) in the commencement of the year, but the rest of the officers have, on the whole, had better health than they had last year. Forester Jagdeo Singh, since promoted, got very ill in his anxiety to help on sleeper operations early in the season. Some deaths in the inferior establishment have taken place, also some of the workmen have died; but taking into consideration the number of persons we have had in the forests this year, the general health has been good, the men almost all agreeing to return next season, whereas they are frightened to go to many other places; and this good state of health is mainly due to the good water which they are enabled to obtain from the packa drinking wells which are situated near the places where they did their work.

NAINI TAL,
The 6th August, 1883.

E. WOOD, CAPTAIN,
Conser. of Forests, N.-W. P. and Oudh,
Oudh Circle.

ANNUAL STATEMENTS.

ANNUAL FORM No. 49.—(Prescribed).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Area of Reserved Forests, 1882-83.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April, 1882		Added during the year	Excluded or transferred to other heads	Area on 31st March, 1883		No. and date of Notification of addition or transfer	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles		
Pilibhit Division ..	Pilibhit district ...	Pilibhit Division	87,680	137	...	...	87,680	137		
Bhira Sub-division ...	Kheri ditto ...	Bhira Sub division	104,960	164	...	..	104,960	164		
Kheri (Trans-Sarda),	Ditto ditto,	Niwalkhar ditto ... ... / Khairigarh ditto	168,320	263	...	...	168,320	263		
Bahraich Division ...	Bahraich ditto,	Motipur ditto ... ... / Bhinga ditto	164,480	257	...	...	164,480	257		
Gonda ditto ...	Gonda ditto ...	Gonda Division	98,258	154	...	...	98,258	154		
Gorakhpur ditto ...	Gorakhpur ditto ...	Gorakhpur ditto	73,600	115	...	...	73,600	115		
		Total ...	697,298	1,090	...	...	697,298	1,090		

Area of Unreserved Forests.—Blank.

ANNUAL FORM No. 50.—(Prescribed.)

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Area of Plantations, 1882-83.

Division.	Name of Plantation.	On 1st April, 1882.		Added during 1882-83.		On 31st March, 1883.		Remarks.
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acres	Rs	Acres.	Rs.	Acres.	Rs	
Bahraich ...	Nishangara ... ... — ...	11	422	...	40	11	462	
	Kain	5	69	...	26	5	95	
	Dondra	2	5	...	79*	2	84	* This block was trenched for Sissu plantation, costing Rs. 48.
	Ponsonbyganj	...	...	1	11	1	11	
	Total	18	496	1	156	19	652	
Gorakhpur,	Ramgarh	553	7,842	...	1,166†	553	9,008	† Nursery, Rs. 417-11-5.
	Sonari	140	408	—40‡	145	100	553	‡ 40 acres were erroneously included last year, this has been now rectified.
	Sakhna	80	246	+220	749	300	995	
	Total	773	8,496	180	2,060	953	10,556	
	Grand Total	791	8,992	181	2,216	972	11,208	
Pilibhit ...	Cultural-operations	...	.	...	313	...	313	
Bhira ...	Ditto ditto	...	27	...	35	...	62	
Kheri ...	Ditto ditto	...	412	...	829	...	1,241	
Bahraich .	Ditto ditto	...	22	...	274§	...	296	§ Cost of sowing on ridges and in pots 6 feet deep is included under this head.
Gonda ...	Ditto ditto	...	6	..	...	..	6	
	Total	..	467	...	1,451		1,918	
	Grand Total	791	9,459	181	3,667	972	13,126	

Naini Tal
The 18th July, 1883

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 51—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Area of Forest tracts protected from fire during the dry season of 1883, (*to accompany report for* 1882-83.)

Division.	Forest tracts.	Up to 30th June, 1882.		During dry season of 1883.					Year in which protection commenced.	Remarks.
		Area actually protected.	Total cost.	Area attempted to be protected.	Failures.	Actually protected	Amount expended.	Total cost up to 30th June, 1883.		
		Acres.	Rs. a. p.	Acres.	Acres.	Acres.	Rs. a. p.	Rs. a. p.		
Pilibhit ...	Mahope home block	8,217	3,514 15 3	20,588	800	19,788	1,469 7 5	4,984 6 8	July, 1879.	
	Total ...	8,217	3,514 15 3	20,588	800	19,788	1,469 7 5	4,984 6 8		
Bhira Sub-division,	Marha home block	6,285	3,794 13 1	15,712	150	15,562	1,875 15 5	5,670 12 6	January, 1877.	
	Total ...	6,285	3,794 13 1	15,712	150	15,562	1,875 15 5	5,670 12 6		
Kheri ...	Dudua home block	15,680	12,670 8 8	22,290	...	22,290	1,525 11 10	14,196 4 6	March, 1872.	
	Kusumbha home block	16,640	1,716 14 1	19,840	...	19,840	993 1 6	2,709 15 7	January, 1881.	
	Total ...	32,320	14,387 6 9	42,130	...	42,130	2,518 13 4	16,906 4 1		
Bahraich ...	Section II. Murtiha bamboo block ...	640	2,656 12 5	640	...	640	789 2 4	3,445 14 9	February, 1878.	
	" " Angurghat block ...	1,280		1,280	...	1,280				
	" " Nishangara home block ...	18,098		18,670	...	18,670				
	" V. Charda " ...	4,960	8,383 13 3	4,960	...	4,960	595 4 6	8,979 1 9	March, 1875.	
	" " Dhauria " ...	1,440		1,440	...	1,440				
	" VI. Kakardari " ...	22		22	...	22				
	" " Asnaria " ...	16		16	...	16				
	" " Lachmanpur " ...	16		16	...	16				
	" VII. Block No. 1 " ...	1,186		1,186	...	1,186				
	" " " No. 2 " ...									
	" " " No. 3 " ...	1,560		2,040	640	1,400				
	" " " No. 4 " ...	...		1,824	160	1,664			January, 1883.	
	Total ...	29,218	11,040 9 8	32,094	800	31,294	1,384 6 10	12,425 0 6		
Gorakhpur ...	Ramgarh and Tilkonia	6,754	6,974 2 6	6,754	7	6,747	1,763 9 7	8,737 12 1	June, 1875.	
	Nagga	5,985		6,000	...	6,000				
	Sonari and Jagpur	22,132		22,132	...	22,132				
	Dudhai	8,580		8,600	...	8,600				
	Bhilampur and Banki	4,154		4,154	120	4,034				
	East Lehra	7,585		7,600	...	7,600				
	West Lehra	12,300		12,300	...	12,300				
	Bhari Baise, and Bhari Bâban ...	6,000		6,000	...	6,000				
	Total ...	73,490	6,974 2 6	73,540	127	73,413	1,763 9 7	8,737 12 1		
	GRAND TOTAL ...	149,530	39,711 15 3	184,064	1,877	182,187	9,012 4 7	48,724 3 10		

	Rs. a. p.
Charged in previous years	35,441 8 9
" " 1882-83	9,730 1 10
	45,171 10 7
" " 1883-84	3,552 9 3
Total	48,724 3 10

NAINI TAL.
The 19th July, 1883.

R. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No. 52.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Prosecutions for breaches of Forest Rules, during 1882-83.

Forest Division and Civil District.	New cases of the year.						Total cases.	Disposed of during the year.						Cases pending at close of year.
	Cases pending from 1881-82.	Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		*Convictions.*		*Acquittals.*		*Total.*		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Pilibhit division ... ... / Pilibhit district	...	...	3	...	...	3	3	3	7	...	...	3	7	...
Bhira sub-division ... ... / Kheri district	...	...	1	...	...	1	1	1	1	...	...	1	1	...
Kheri division ... ... / Kheri district	1	...	5	...	...	5	6	5	14	1	5	6	19	...
Bahramghat division ... ... / Bara Banki district	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bahraich division ... ... / Bahraich district	1	2	24	1	4	31	32	27	47	4	4	31	51	1
Gonda division ... ... / Gonda district	2	...	8	10	...	18	20	15	23	4	18	19	41	1
Gorakhpur division ... ... / Gorakhpur district	...	1	1	2	1	5	5	4	15	1	1	5	15	...
Total ...	4	3	42	13	5	63	67	55	107	10	28	65	135	2

All these cases were tried by Magistrates.

NAINI TAL:
The 10th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No. 53.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of Revenue of the different Divisions, 1882-83.

Budget Heads Receipts.	Direction.	Kheri Division.	Bhira Sub-division.	Bahramghat Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhit Division.	Total.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency:—									
(a) Timber	...	62,794 13 1	...	1,37,666 11 3	69 3 8	397 15 3	890 1 9	...	2,01,818 13 0
(b) Firewood and charcoal	...	...	...	136 13 3	...	...	3 0 0	...	139 13 3
(c) Bamboos	...	...	...	...	...	...	...	...	...
(d) Sandal-wood	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers:—									
(a) Timber	...	12,010 15 10	737 7 0	...	31,251 0 7	6,850 8 1	36,285 3 0	1,587 11 6	88,722 14 0
(b) Firewood and charcoal	...	248 0 9	325 4 3	...	666 11 10	1,060 1 5	11,399 5 7	3,977 8 6	17,677 0 [illegible]
(c) Bamboos	...	...	...	...	14 8 0	...	...	...	14 8 0
(d) Grazing and fodder grass	...	10,604 15 11	3,148 14 6	...	11,779 8 4	7,229 11 5	1,577 6 6	826 4 3	35,166 12 11
(e) Other minor produce	...	7,736 12 0	1,650 13 6	...	18,154 15 6	3,512 7 10	3,462 7 0	1,348 0 1	30,865 7 11
III.—Confiscated, drift and waif wood	...	1,353 15 3	...	285 0 0	1,455 0 0	416 5 9	28 4 0	362 10 0	3,901 3 0
IV.—Revenue from forests not managed by Government:—									
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests	...	...	...	...	...	...	...	...	...
V.—Miscellaneous:—									
(a) Fines and forfeitures	...	...	25 0 0	2 0 0	9 10 0	26 8 0	...	70 1 9	133 3 9
(b) Refunds	...	720 10 6	...	...	0 7 8	...	...	16 8 0	737 10 2
(c) Other sources	...	2,433 7 7	196 5 9	618 0 7	444 5 0	161 0 5	1,279 13 3	119 6 6	5,252 7 1
Total, Receipts	...	97,903 10 11	6,083 13 0	1,38,708 9 1	58,845 6 7	19,654 10 2	54,925 9 1	8,308 2 7	3,84,429 13 5

CALCUTTA:
The 16th June, 1883.

G. J. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 53—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of Expenditure of the different Divisions, 1882-83.

Budget heads.	Direction.	Kheri Division.	Bhira Sub-division.	Bahramghat Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhit Division.	Total.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS.									
I.—Timber and other produce removed from the forests by Government agency:—									
(a) Timber	...	99,988 3 5	...	23,935 4 1	3,839 4 2	121 4 0	7,011 13 7	...	1,34,895 15 3
(b) Firewood and charcoal	...	14 8 0	...	...	...	...	...	...	14 8 0
(c) Bamboos	...	...	...	...	...	...	...	...	...
(d) Sandal-wood	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers	...	1,428 3 0	1,808 11 5	...	1,912 2 7	382 3 5	283 0 4	2,916 0 11	8,730 5 8
III.—Confiscated, drift and waif wood	...	252 10 10	...	30 0 0	...	56 0 0	...	...	338 10 10
IV.—Revenue from forests not managed by Government:—									
(a) Duty on foreign timber and other forests produce	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests, and payments to shareholders in forests managed by Government ...	...	...	...	...	...	...	...	...	...
VI.—Live stock, stores, tools and plant:—									
(a) Purchase of cattle	...	32 0 0	...	...	...	24 0 0	...	...	56 0 0
(b) Feed and keep of cattle	...	2,076 4 9	180 9 7	501 10 7	528 13 5	517 14 6	664 14 9	827 5 7	5,297 9 2
(c) Stores, tools and plant	...	819 4 10	34 12 0	2,357 13 0	165 4 0	49 4 0	54 8 0	128 7 5	3,599 5 3
VII.—Communications and buildings:—									
(a) Roads and bridges	...	8,585 4 9	1,950 9 0	692 14 11	796 15 3	687 8 9	391 8 8	1,179 14 1	12,284 11 5
(b) Buildings	...	6,778 13 6	111 11 3	390 2 0	875 3 6	2,037 15 4	1,786 14 3	4,632 14 9	16,611 10 7
(c) Other works	...	1,201 15 11	528 3 4	...	22 2 0	242 13 6	94 2 4	552 1 9	2,641 6 10
VIII.—Demarcation, improvement and extension of forests:—									
(a) Demarcation	...	...	500 0 0	...	1,356 8 4	51 4 0	76 0 0	585 3 9	2,569 0 1
(b) Compensation for land and rights ...	...	...	...	...	...	...	...	...	...
(c) Surveys and working-plans	...	...	...	...	0 9 0	...	0 14 0	24 2 0	25 9 0
(d) Plantations...	...	829 6 2	35 4 3	...	430 3 9	...	2,059 15 10	312 5 5	3,667 3 5
(e) Protection from fire	...	2,700 10 4	2,000 0 0	...	1,618 8 5	183 0 0	1,684 14 6	1,603 0 7	9,730 1 10
(f) Other works	...	...	...	...	730 14 6	192 0 0	2,846 4 0	28 7 0	3,797 9 6
IX.—Miscellaneous:—									
(a) Refunds	...	...	...	...	...	...	...	...	...
(b) Law charges	...	0 10 0	18 0 0	...	...	...	...	...	18 10 0
(c) Other charges	...	692 2 0	140 0 9	...	66 10 6	5 1 0	62 6 0	62 15 3	1,029 3 6
Total, A.—Conservancy and Works ...	...	1,23,398 1 6	7,302 13 7	27,907 12 7	12,333 3 5	4,550 4 6	16,957 6 3	12,852 14 6	2,05,302 8 4

CALCUTTA:
The 16th June, 1883.

G. J. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 53.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of Expenditure of the different Divisions, 1882-83.

Budget heads.	Direction.	Kheri Division.	Bhira Sub-division.	Babramghat Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhit Division.	Total.
B.—ESTABLISHMENTS.	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Brought forward, Total, A.—Conservancy and Works ...	...	123,398 1 6	7,302 13 7	27,907 12 7	12,333 3 5	4,550 4 6	16,957 6 3	12,852 14 6	2,05,602 8 4
I.—Salaries :—									
(a) Conservators	15,947 13 8	...	...	...	...	...	...	...	15,947 13 8
(b) Superior officers	...	8,115 12 10	...	2,400 0 0	2,500 0 0	2,850 0 0	3,000 0 0	8,993 5 4	27,859 2 2
(c) Subordinate forest and depôt establishments ...	...	4,915 15 9	908 9 1	372 0 0	2,886 14 11	1,572 0 0	4,244 0 11	692 10 8	15,572 3 4
(d) Office establishments	1,643 5 4	2,626 4 6	42 13 10	300 0 0	1,115 4 0	360 0 0	720 0 0	556 0 4	7,363 12 0
(e) Deputation and special allowances ...	...	...	...	...	...	...	...	...	...
II.—Travelling Allowances :—									
(a) Conservators	1,574 15 6	...	...	...	...	...	...	...	1,574 15 6
(b) Superior officers	...	1,782 12 4	...	418 8 7	997 13 4	776 10 0	1,532 0 0	1,318 8 0	6,826 4 3
(c) Subordinate forest and depôt establishments ...	...	655 3 6	30 10 0	...	410 15 4	286 9 7	131 12 1	188 1 9	1,703 3 6
(d) Office establishments	434 0 4	697 9 0	9 13 8	16 0 0	314 15 0	137 0 5	337 15 3	143 15 4	2,091 5 0
III.—Contingencies :—									
(a) Stationery	7 6 9	36 2 6	9 2 0	...	13 0 3	8 14 11	2 2 0	8 8 0	85 4 5
(b) Carriage of tents and records	299 15 9	69 1 11	37 14 9	...	142 11 6	124 8 0	67 14 0	33 2 0	775 3 11
(c) Rents, rates and taxes	200 0 0	...	100 0 0	...	0 4 3	100 0 0	100 0 0	100 0 0	600 4 3
(d) Pay of police guards	...	275 11 3	...	176 0 0	119 8 0	141 8 0	60 0 0	148 5 9	921 1 0
(e) Official postage	161 9 0	78 11 6	28 4 0	68 4 6	58 4 6	30 3 0	33 14 0	29 14 6	489 8 0
(f) Sundries	308 12 0	492 11 7	63 6 10	39 5 3	256 3 9	196 14 6	135 4 6	102 1 6	1,594 11 11
Total, B.—Establishments	20,577 14 4	19,746 0 8	1,230 10 2	3,790 9 4	8,795 14 10	6,584 4 5	10,364 14 9	12,314 8 5	83,404 12 11
GRAND TOTAL OF EXPENDITURE	20,577 14 4	1,43,144 2 2	8,533 7 9	31,698 5 11	21,129 2 3	11,134 8 11	27,322 5 0	25,167 6 11	2,88,707 5 3

CALCUTTA:
The 16th June, 1883.

G. J. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 54.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, ODUH CIRCLE.

Account Current for the year 1882-83.

DR. CR.

Heads of account.	Rs. a. p.	Rs. a. p.	Heads of account.	Rs. a. p.	Rs. a. p.
To cash balance on 1st April, 1882	...	2,172 8 5	By expenditure as per annual summary (Form No. 53) ...	...	2,88,707 5 3
„ Revenue as per annual summary (Form No. 53) ...	...	3,84,429 13 5	„ Deposits	...	200 0 0
Service fund.			*Forest cash remittance (Local).*		
„ Uncovenanted Service Family Pension Fund, Bengal ...	...	486 15 0	Remittances to Treasury	2,29,239 12 0	
„ Deposits	...	100 0 0	Inter Divisional transfers	12,125 8 5	2,41,365 4 5
Forest cash remittance (Local.)			„ Advances recoverable	...	3,58,512 14 9
Forest Cheques drawn	8,11,521 7 10		*Inter Departmental Transfer.*		
Inter Divisional transfers	12,439 13 5	3,23,961 5 3	Public Works Department (other branches)	47,995 13 9	
„ Advances recoverable	...	3,25,797 4 10	Ditto ditto Panjáb	642 8 0	
Account current (other Governments.)			Ditto State Railways	81,249 9 1	
Government of India	...	122 1 2	Civil Department, Jails	11,949 4 3	
Inter Departmental Transfer.			„ Miscellaneous	4,421 11 7	
Public Works Department (other branches)	2,714 7 0		„ Mathematical Instrument Department	101 13 0	
Civil Department, Jails	446 8 0		„ Reward for passing examination	360 0 0	1,46,720 11 8
„ Mathematical Instrument Department	272 14 0	3,433 13 0	„ Cash balance on 31st March, 1883	...	4,997 9 0
Total ...	...	10,40,593 13 1	Total ...	...	10,40,593 13 1

CALCUTTA:
The 16th June, 1883.

G. J. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 55—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers, for 1882-83.

Division.	Department debtor.			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities.)	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
Direction	...	2,371 8 3	2,371 8 3	354 8 10	2,038 14 3	2,393 7 1	21 14 10	...	
Kheri	105 4 6	*2,22,614 3 7	2,22,719 8 1	29,559 12 9	2,46,853 13 8	2,76,393 10 5	53,674 2 4	...	* Written off Rs. 322-3-9, *vide* G. O. No. 440, dated 24th June, 1882.
Bhira	...	11,703 13 6	11,703 13 6	745 6 10	12,226 5 6	12,971 12 4	1,267 14 10	...	
Bahramghat	...	2,483 8 7	2,483 8 7	192 1 0	3,247 5 4	3,439 6 4	955 13 9	...	
Bahraich	...	40,952 12 3	40,952 12 3	1,634 1 6	49,557 6 7	51,191 8 1	10,238 11 10	...	
Gonda	...	12,483 4 9	12,483 4 9	792 13 9	12,591 14 11	13,384 12 8	901 7 11	...	
Gorakhpur	...	†15,564 13 2	15,564 13 2	1,333 9 0	15,110 9 1	16,444 2 1	879 4 11	...	† Written off Rs. 46-6-0, *vide* G. O. No. 440, dated 24th June, 1882.
Pilibhit	...	17,623 4 9	17,623 4 9	1,434 12 1	16,906 9 5	18,341 5 6	718 0 9	...	
Total ...	105 4 6	3,25,797 4 10	3,25,902 9 4	36,047 1 9	3,58,512 14 9	3,94,560 0 6	*68,657 7 2	...	

ANNUAL FORM No. 56.—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Revenue received and Outstandings on account of Revenue during 1882-83.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	... ...	...	...	...	...	...	
Kheri	Timber sales, grazing dues, and minor produce,	5,938 6 1	97,947 10 5	1,03,886 0 6	*98,006 10 11	5,879 5 7	*Includes Rs. 103 written off, *vide* G. O. No. 664, dated 3rd October, 1882, revenue received in advance Rs. 2,949-11-6.
Bhira	Grazing dues, and minor produce ...	247 2 0	5,980 2 0	6,227 4 0	6,083 13 0	143 7 0	
Bahramghat ...	Timber sales	1,909 8 6	1,48,655 13 7	1,50,465 5 1	†1,38,754 7 1	11,710 15 0	†Includes Rs. 45-14-0, written off, *vide* G. O. No. $\frac{259}{\text{Dy. 163}}$ dated 18th April, 1882.
Bahraich	Drift timber, grazing dues, and minor produce,	18,438 14 8	58,811 14 6	77,250 13 2	58,845 6 7	18,405 6 7	
Gonda	Grazing dues, and minor produce ...	15 0 0	21,557 9 2	21,572 9 2	19,654 10 2	1,917 15 0	
Gorakhpur ...	Timber and other produce	2,703 11 2	58,288 12 5	60,992 7 7	54,925 9 1	6,066 14 6	
Pilibhit	Timber and other miscellaneous produce ...	2,563 15 9	8,308 2 7	10,872 2 4	‡10,872 2 4	...	‡Includes Rs. 2,563-15-9 written off, *vide* G O. No. 632, dated 19th September, 1882.
	Total ...	31,716 10 2	3,99,550 0 8	4,31,266 10 10	(a)3,87,142 11 2	*44,123 15 8	Total ... 2,712 13 9
							*From Public Departments, Rs. 11,513-5-5 ,, other purchasers, ,, 32,610-10-3

(a) Realization as per form No. 53 ... Rs. 3,84,429 13 5
Amount written off under G. O. ... ,, 2,712 13 9
Total ... 3,87,142 11 2

CALCUTTA:
The 16th June, 1883.

G. J. VANSOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 57—(Prescribed).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Financial results of the year 1882-83.

Division.	*Timber and other produce removed from the forests by Government Agency.*		*Other revenue.*		*Formation, protection and improvement of forests.*	*Total.*		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	
Pilibhit Division ..	...	...	8,308	13,908	13,546	8,308	27,454	
Bhira Sub-division ...	...	...	6,084	5,046	5,773	6,084	10,819	
Kheri Division ...	62,795	1,14,170	25,109	15,849	17,698	2,36,612	1,81,702	
Bahramghat ditto ...	1,38,708	33,985						
Bahraich ditto ...	69	3,839	58,776	9,819	12,044	58,845	25,702	
Gonda ditto ...	398	121	19,257	6,656	6,644	19,655	13,421	
Gorakhpur ditto ...	898	7,012	54,033	8,136	14,461	54,926	29,609	
Total ...	2,02,863	1,59,127	1,81,567	59,414	70,166	3,84,430	2,88,707	

Naini Tal:
The 26th June, 1883.

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 58—(Suggested).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Trees felled by Government Agency during the year 1882-83. (*Selection fellings*).

Division.	*Trees felled.*		Remarks.
	Description.	Number.	
	Sál	2,438	2,500 trees felled, but 62 turned out hollow, therefore not shown in this return.
	Total ...	2,438	

Abstract of the Circle.

Description of trees.	1st class above 6′ in girth.	2nd class 6—4½ feet in girth.	Remarks.
Sál	2,438	...	
Total	2,438	...	

Naini Tal:
The 6th August, 1883.

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX I. TO FORM No. 58—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Trees felled by Government Agency during the year 1882-83. (*Mature raled and crooked trees other than selection fellings*).

Division.	Trees felled. Description.	Number.	Remarks.
Kheri Division	Sál, dead trees	63	
	Sál, crooked trees	8,649	
Bahraich ditto	Sál trees	587	
	Sissu trees	98	
	Asna	98	
Gonda ditto	Sál trees	7	
Gorakhpur ditto	Asna trees	21	
	Sál, crooked and raled trees	4,581	
	Total ...	14,504	

Abstract of the Circle.

Description.	First class above 6′ in girth.	Second class 6′—4½′ in girth.	Third class 4½′—3″ in girth.	Fourth class 3′—1½′ in girth.	Fifth class under 1½′ in girth.	Total of each kind of trees.	Remarks.
Sál	987	10,416	2,884	...	...	14,287	
Sissu	98	...	...	...	...	98	
Asna	98	...	21	...	...	119	
Miscellaneous	...	...	...	...	...	...	
Total ...	1,183	10,416	2,905	...	...	14,504	

NAINI TAL :
The 6th August, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX II. TO FORM No. 58—(SUGGESTED).

FOREST DEPARTMENT NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of Receipts and Expenditure on Departmental thinnings during the year 1882-83.

Division.	Description of timber.	On hand at commencement of the year. Number.	Value.	Cut during the year. Number	Value.	Total. Number.	Value.	Expenditure on year's cutting and thinnings. Number.	Amount.	Sold during the year. Number	Value.	On hand at close of the year. Number.	Value.	Remarks.
					Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	
GORAKHPUR.	Sál ballas ...	...	...	3,665	1,995 14 0	3,665	1,995 14 0	3,665	1,945 5 0	3,665	1,995 14 0	...	...	
	Sál koros ...	...	...	2,209	334 2 0	2,209	334 2 0	2,209		2,209	334 2 0	...	...	
	Asna ballas ...	...	...	130	42 6 0	130	42 6 0	130		130	42 6 0	...	...	
	Asna koros ...	...	...	143	17 14 0	143	17 14 0	143		143	17 14 0	...	...	
	Mahua trees ...	...	...	85	327 0 0	85	327 0 0	85		85	327 0 0	...	...	
	Pairua ...	...	...	8	1 0 0	8	1 0 0	8		8	1 0 0	...	...	
	Firewood ...	...	...	mds. 80,000	8,081 15 7	mds. 80,000	8,081 15 7	mds. 80,000		mds. 80,000	6,555 15 7	...	1,526 0 0	Due from Kutwaru Chowdhri.
	Firewood sold to Mr. Deveria, all trees on 45 acres.	...	...	mds. 50,000	5,000 0 0	mds. 50,000	5,000 0 0	mds. 50,000		mds. 50,000	2,500 0 0	...	2,500 0 0	Due from Mr. L. Deveria, and Co.
Total,	Number	...	...	6,240	15,800 3 7	6,240	15,800 3 7	6,240	1,945 5 0	6,240	11,774 3 7	...	4,026 0 0	
	Maunds	...	...	1,30,000		1,30,000		1,30,000		1,30,000				

NAINI TAL :
The 24th June, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 59—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Outturn of timber and other produce cut and collected by Government Agency, during the year 1882-83.

Division.	Produce cut and collected. How obtained.	Description.	Number or quantity.	Cubic feet.	Remarks.
Kheri ...	Selection fellings,	Sál logs ...	2,954	184,052	
	Dead standing ...	Ditto ...	63	2,875	
	Crooked trees ...	Ditto ...	7,770	319,284	
	River ...	Ditto ...	5	273	
	Ditto ...	Asna log ...	1	58	
	Selection fellings,	Sál sleepers ...	84,860	113,147	
	Dead cuttings ...	Ditto ...	1,386	1,424	
	Crooked trees ...	Sál scantlings ...	913	1,067	
	Ditto ...	Sál pieces ...	41,338	82,676	
	Selection fellings,	Sissu pieces ...	110	1,100	
	Hollow sál trees,	Canoes ...	124	...	
	River ...	Ditto ...	1	...	
	Fellings ...	Miscellaneous poles ...	28	61	
	Collections ...	Drift timber ...	1,339	5,356	
		Total ...	140,892	711,393	
Bahraich ...	Fellings ...	Asna logs ...	98	4,885	
	Ditto ...	Sissu logs ...	98	2,416	
	Ditto ...	Sál logs ...	987	47,615	
	Ditto ...	Sál ballis ...	100	300	
	Conversions ...	Sál sleepers ...	18,379	24,505	
	Thinnings ...	Miscellaneous poles ...	3	7	
		Total ...	19,665	79,728	
Gonda ...	Fellings ...	Sál logs ...	7	119	
	Ditto ...	Asna logs ...	21	304	
	Ditto ...	Dhao axles ...	230	230	
	Ditto ...	Sál ballis ...	226	781	
	Ditto ...	Sál poles ...	739	739	
	Collections ...	Drift and confiscated timber,	2,044	4,088	
	Ditto ...	Ditto charcoal, maunds,	45	...	
		Total ... Number ...	3,267	6,261	
		Total ... Maunds ...	45	...	
Gorakhpur ...	Fellings ...	Sál logs ...	4,581	114,825	
	Conversions ...	Sál sleepers ...	11,943	15,924	
	Ditto ...	Sál scantlings ...	3,374	875	
	Ditto ...	Sál pieces ...	12,843	51,372	
	Ditto ...	Sál offcuts ...	9,413	18,826	
	Re-transfer ...	Sál boats ...	1	...	
	Tops and stumps,	Charcoal, maunds ...	21	...	
	Collections ...	Drift timber ...	5	56	
		Total ... Number ...	42,160	201,878	
		Total ... Maunds ...	21	...	
Pilibhit ...	Collections ...	Drift timber ...	121	726	
		Total ...	121	726	
		Total ... Number ...	206,105	999,986	
		Total ... Maunds ...	66	...	

Abstract of the Circle.

		Sál logs ...	16,367	669,043
		Asna logs ...	120	5,247
		Sissu logs ...	98	2,416
		Sál sleepers ...	116,568	155,000
		Sál scantlings ...	4,287	1,962
		Sál pieces ...	54,181	134,048
		Sissu pieces ...	110	1,100
		Sál offcuts ...	9,413	18,826
		Dhao axles ...	230	230
		Sál ballis ...	326	1,081
		Sál koros ...	739	739
		Miscellaneous ...	31	68
		Charcoal, maunds ...	21	...
		Canoes and boats ...	126	...
		Drift confiscated timber ...	3,509	10,226
		Ditto charcoal, maunds ...	45	...
		Total ... Number ...	206,105	999,986
		Total ... Maunds ...	66	...

NAINI TAL:
The 6th August, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 6D—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce received from Forests in Sale Depôts, during the year 1882-83.

Division.	Depôt.	Produce received.			Remarks.
		Description.	Number or quantity.	Cubic feet.	
Bahramghat ...	Bahramghat ...	Sál logs	3,450	188,392	
		Sál drift	7	250	
		Asna logs	247	13,395	
		Sissu logs	291	6,627	
		Sissu stumps	35	298	
		Sál ballis	19	160	
		Miscellaneous	31	68	
		Bahorà logs	2	21	
		Dhao logs	2	25	
		Tikoe logs	1	10	
		Pandar logs	2	30	
		Charcoal ...	Mds. 67	...	
		Total ...	No. 4,087	209,276	
			Mds. 67	...	

Abstract of the Circle.

		Sál	3,457	193,642	
		Asna	247	13,395	
		Sissu	326	6,925	
		Sál poles	19	160	
		Miscellaneous poles ...	31	68	
		Bahera	2	21	
		Dhao	2	25	
		Tikoe	1	10	
		Pandar	2	30	
		Charcoal	Mds. 67	...	
		Total, timber, &c. ...	4,087	209,276	
		Total, charcoal ...	Mds. 67	...	

NAINI TAL:
The 1st July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 61-E (SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Sales of timber and other produce cut and collected by Government Agency, during the year 1882-83.

Division.	Depôt or Locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
	PART I.—SOLD FROM DEPÔT.				
Bahramghat ...	Bahramghat Depôt	Sál logs ...	410	20,631	
		Asna logs ...	40	2,074	
		Sissu logs ...	87	1,951	
		Sál scantlings ...	77,467	64,576	
		Asna ditto ...	6,577	4,410	
		Deodar ditto ...	8	1	
		Sissu ditto ...	243	65	
		Dhao ditto ...	10	4	
		Pieces of Sal logs...	782	9,189	
		Ditto Asna ...	112	1,536	
		Sál offcuts ...	1,130	761	
		Asna ditto ...	427	450	
		Sál offcuts ...	Mds. 385	...	
		Asna do. ...	" 303	...	
		Charcoal ...	" 273	...	
		Mango fuel ...	" 4	...	
		Miscellaneous ballis,	4	12	
		Pieces of Sissu log,	2	7	
		Large boat ...	1	...	
		Canoes ...	4	...	
		Drift Sál logs ...	7	250	
		Total	No. 87,311 Mds. 965	105,917 ...	
	Lucknow Depôt...	Sál scantlings ...	67	6,187	4,437 Mds.
		Asna do. ...	1	1	
		Sál offcuts ...	2,279	...	
		Asna do. ...	Mds. 23	...	
		Total	No. 68 Mds. 2,302	6,188 ...	
		GRAND TOTAL ...	No. 87,379 Mds. 3,267	112,105 ...	
Bahraich ...	Dharmapur ...	Canoes ...	1	...	
		Total ...	1	...	
		GRAND TOTAL ...	No. 87,380 Mds. 3,267	112,105 ...	
	PART II.—SOLD LOCALLY.				
Kheri ...	Sathiana ...	Sál logs ...	25	1,111	
	Dudua ...	Sal scantlings ...	472	607	
	Dudua Sathiana	Sál sleepers 6′×6″×4″.	34,585	46,113	
	Khairigarh ...	Canoes ...	8	...	
	Sarda river ...	Drift timber ...	1,339	5,336	
		Total ...	36,429	53,167	
Bahraich ...	Sujauli ...	Sissu logs ...	2	47	
		Total ...	2	47	
Gonda ...	...	Sál logs ...	7	119	
		Asna logs ...	21	304	
		Dhao axles ...	230	230	
		Drift and confiscated timber.	2,044	4,088	
		Confiscated charcoal,	Mds. 45	...	
		Total	No. 2,302 Mds. 45	4,741 ...	
Gorakhpur ...	Birdghat ...	Boats ...	12	...	
	Sakhai ...	Sál ballas ...	491	982	
		" Koros ...	2	2	
		" Golas ...	49	98	
		Drift timber ...	3	30	
		Charcoal ...	Mds. 21	...	
	Pakri ...	Drift timber ...	2	20	
		Total	No. 559 Mds. 21	1,132 ...	

FORM No. 6.—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Sale of timber and other produce cut and collected by Government Agency, during the year 1882-83. —(concluded.)

Division.	Depôt or Locality.	Produce sold.			Remarks.
		Description.	Number or quantity.	Cubic feet.	
Pilibhit Division ...	River Sarda ...	Drift timber ...	121	726	
		Total ...	121	726	
		GRAND TOTAL OF PART II.	No. 39,413 Mds. 66	59,813 ...	
		GRAND TOTAL OF PARTS I. AND II.	No. 126,793 Mds. 3,333	171,918 ...	
		Abstract of the Circle.			
		PART I.—SOLD FROM DEPÔTS.			
		Sál logs ...	410	20,631	
		Asna logs ...	40	3,074	
		Sissu logs ...	87	1,951	
		Sál scantlings ...	77,584	70,763	
		Asna ditto ...	6,378	4,411	
		Deodar ditto ...	8	1	
		Sissu ditto ...	243	65	
		Dhao ditto ...	10	4	
		Pieces of Sál logs ...	782	9,189	
		Ditto Asna ...	112	1,536	
		Ditto Sissu ...	2	7	
		Sál offcuts ...	1,130	761	
		Asna ditto ...	427	450	
		Sál ditto ...	Mds. 2,664	...	
		Asna ditto ..	,, 326	...	
		Charcoal ...	,, 273	...	
		Mango fuel ...	,, 4	...	
		Miscellaneous ballis ...	4	12	
		Large boat ...	1	...	
		Canoes ...	5	...	
		Drift Sál logs ...	7	250	
		Total ..	No. 87,380 Mds. 3,267	112,105 ...	
		PART II.—SOLD LOCALLY.			
		Sál logs ...	32	1,250	
		Asna logs ...	21	304	
		Sissu logs ...	2	47	
		Sál scantlings ...	472	607	
		Sál sleepers ...	34,585	46,113	
		Dhao axles ...	230	230	
		Sál ballas ...	491	982	
		,, Koros ...	2	2	
		,, Golas ...	49	98	
		Canoes and boats ...	20	...	
		Charcoal ...	Mds 21	...	
		Drift confiscated timber.	3,509	10,200	
		Ditto charcoal ...	,, 45	...	
		Total ..	No. 39,413 Mds. 66	59,813 ...	
		GRAND TOTAL OF ALL.	No. 126,793 Mds. 3,333	1,71,918 ...	

NAINI TAL:
The 24th June, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 62.—(Prescribed).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Account of timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1882-83.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Sale Depôts.				
Balance at commencement of the year.				
Bahramghat Division. Bahramghat Depôt. Sál logs	771	41,832		
Asna logs	16	778		
Sál scantlings...	159,513 and 2 stacks.	11,293		
Asna scantlings	56	391		
Deodar scantlings	24	33		
Miscellaneous poles	*246	...		
Charcoal	Mds. 206	...		
Large boats	35	...		
„ canoes	4	...		
Lucknow Depôt, sál scantlings	128	148	160,793 and 2 stacks and 206 maunds	54,475
Bahraich Division ... Dharmapur Depôt, Canoes ...	465	...	465	...
Locally—				
Kheri Division ... Sál logs	11,866	456,118		
Asna logs	820	31,317		
Sissu logs	531	13,304		
Sál sleepers	6,265	6,439		
Sál scantlings ...	99	486		
Sál karis	200	302		
Firewood ...	Mds. 66	...		
Large boats	53	...		
„ canoes... ...	699	...	20,533 and 66 maunds	507,966
Pilibhit Division ... Canoes	3	...	3	...
Gorakhpur Division, Sál ballas	*1,499			
„ koros	*19			
„ golas	*134			
„ boats	12			
	...	...	1,664	
Total, Balance ...	...	...	183,458 and 2 stacks and 272 maunds.	562,441
Add cubic feet of poles and ballas marked with asterisk, not shown in last year's return No. 62 ...	...	...	...	4,023
Grand Total ...	...	...	183,458 and 2 stacks and 272 maunds.	566,464
Received from the Forests in Sale Depôts.				
Sál logs	3,450	188,892		
Asna logs	247	13,395		
Sissu logs	291	6,627		
Sál poles	19	160		
Miscellaneous poles	31	68		
Dhao logs	2	25		
Tikoe do.	1	10		
Bahera do.	2	21		
Pandar do.	2	30		
Sissu stumps	35	298		
Charcoal	Mds. 67	...		
Drift sál logs	7	250	4,087 and 67 maunds.	209,276

FORM No. 62—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Acount of timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally, during the year 1882-83—(continued).

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Received from the Forests and sold locally.					
Sissu logs		2	47		
Sál logs		7	119		
Asna logs		21	304		
Dhao axles		230	230		
Charcoal		Mds. 66	...		
Drift and confiscated timber		3,509	10,226		
		...	...	3,769 and 66 maunds.	10,926
Received from the Forests in Depôts, other than sale Depôt.					
Sál logs ...	Selection fellings ... 2,954				
	Dead standing ... 63				
	Crooked trees ... 7,770				
	River ... 5				
	Bahraich fellings ... 987	16,360	668,924		
	Gorakhpur „ ... 4,581				
	16,360				
Asna logs ...	River ... 1	99	4,943		
	Bahraich fellings ... 98				
	99				
Sissu logs ...	Bahraich fellings ...	98	2,416		
Sál poles ...	Bahraich fellings ... 100	326	1,081		
	Gonda fellings ... 226				
Sál Koros ...	Ditto ...	739	739		
Miscellaneous poles,	Kheri fellings ... 28	31	68		
	Bahraich „ ... 3				
	Hollow trees in Kheri ... 124	125	...		
Canoes ...	River „ ... 1			17,778	678,171
Received by conversion.					
Sál scantlings ...	Forest ... 4,287	81,148	77,545		
	Bahramghat ... 76,861				
	81,148				
Sál sleepers ...	Forest ... 116,568	140,091	186,364		
	Bahramghat ... 23,523				
	140,091				
Sissu scantlings ...	Bahramghat	416	127		
Dhao scantlings ...		10	4		
Asna scantlings ...		8,024	4,945		
Sál pieces ...	Forest ... 65,375	66,157	183,421		
	Bahramghat ... 782				
	66,157				
Asna pieces ...	Bahramghat ...	112	1,536		
Sissu pieces ...	Forest ... 110	112	1,107		
	Bahramghat ... 2				
	112				
Sál offcuts ...	Forest ... 9,413	10,543 and 2,664 Mds.	19,587 maunds.		
	Bahramghat ... 1,130				
	Ditto, ... 2,664				
Asna offcuts ...	Bahramghat ...	427 and 326	450 maunds.		
Mango fuel ...	Ditto ...	Mds. 4			
		...	...	307,040 and 2,994	475,086 maunds.

FORM No. 62—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally, during the year 1882-83—(continued).

Particulars.	No. or quantity.	Cubic feet.	Total of each head: No. or quantity	Total of each head: Cubic feet
Received by transfer from Sale Depôts.				
Sál scantlings	67	6,187		
Asna ditto	1	1		
Sál offcuts	Mds. 2,279	...		
Asna offcuts	" 23	...		
Canoes	6	...		
Boats	1	...		
Large boats	26	...		
	...	...	101 and 2,302	6,188 maunds
Received by transfer from Forest Division.				
Large boats	12	...	12	...
Total, Receipts ...	...	...	332,787 and 5,429	13,79,647 maunds.
GRAND TOTAL ...	...	...	516,243 and 2 stacks and 5,701	19,46,111 maunds.
Removed by purchasers from Sale Depôts.				
Sál logs	410	20,631		
Asna logs	40	2,074		
Sissu logs	87	1,951		
Sál scantlings	67,467	51,241		
Sál sleepers	10,000	18,533		
Asna scantlings	6,577	4,410		
Deodar scantlings	8	1		
Sissu scantlings	243	65		
Dhao scantlings	10	4		
Sál offcuts	1,130	761		
Ditto ditto	Mds. 385	...		
Asna offcuts	427	450		
Ditto Ditto	Mds. 303	...		
Pieces of Sál logs	782	9,189		
Pieces of Asna logs	112	1,536		
Pieces of Sissu logs	2	7		
Miscellaneous poles	4	12		
Charcoal	Mds. 273	...		
Mango fuel	" 4	...		
Large boats	1	...		
Canoes	4	...		
Drift sál logs	7	250		
Sál scantlings (Lucknow Depôt) ..	67	6,187		
Asna scantlings	1	1		
Sál offcuts	2,279	...		
Asna offcuts	23	...		
Canoes (Dharmapur Bahraich)	1	...	87,380 and 3,267	112,103 maunds
Removed by purchasers from Forest Depôts other than Sale Depôts				
Sál logs ... } Kheri	25	1,111		
Sál scantlings ... } Kheri	472	607		
Sál sleepers ... } Kheri	34,585	46,113		
Canoes ... } Kheri	8	...		
Boats ... } Gorakhpur	12	...		
Sál ballas ... } Gorakhpur	491	982		
Sál koros .. } Gorakhpur	2	2		
Sál golas ... } Gorakhpur	49	98	35,644	48,913
Sold from Forests "Locally."				
Sissu logs	2	47		
Sál logs	7	119		
Asna logs	21	304		
Dhao axles	230	230		
Charcoal	Mds. 66	...		
Drift and confiscated timber	3,509	10,226	3,769 and 66 maunds.	10,926

FORM No. 62—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally, during the year 1882-83—(continued).

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Converted in Depôts.				
Sál logs, (in sale depôts)	3,446	189,283		
Asna logs, (ditto)	195	10,253		
Sissu logs, (ditto)	82	756		
Sál scantlings, (ditto)	5,821	12,325		
Asna ditto, (ditto)	656	602		
Sál logs, (in forest depôts)	15,794	624,574		
Sal pieces, (ditto)	20,342	70,776		
			45,286	914,569
Lost or written off as useless.				
Sál logs, (Kheri)	694	4,150		
Asna logs, (Bahraich)	20	1,252		
Sissu logs, (ditto)	4	200		
Sál poles, (ditto)	4	12		
Sál karis, (Kheri)	47	71		
Large boats, (ditto)	5	...		
Canoes, (ditto)	117	...		
			891	5,685
Used by the Department.				
Sál logs, (Kheri)	7	250		
Sissu logs, (Bahramghat)	3	66		
Bahera log, (ditto)	1	10		
Dhao log, (ditto)	1	11		
Pander log, (ditto)	1	12		
Sissu stump, (ditto)	1	8		
Miscellaneous ballis, (ditto) (poles)	112	336		
Sál scantlings, (ditto)	6,243 and 2 stacks	2,091		
Sissu ditto, (ditto)	83	23		
Asna ditto, (ditto)	49	129		
Deodar ditto, (ditto)	3	5		
Sál ditto, (Kheri)	282	702		
Sál pieces, (ditto)	800	1,600		
			7,586 and 2 stacks.	5,243
Transferred to Sale Depôts.				
Sál scantlings (Lucknow depôt)	67	6,187		
Asna ditto (ditto)	1	1		
Sál offcuts (ditto)	Mds. 2,279	...		
Asna offcuts (ditto)	" 23	...		
Canoes	6	...		
Canoes, (Gorakhpur)	1	...		
Large boats	38	...	113	6,188
			2,302	maunds.
Sál logs ... } These have been sent to Bahramghat and entered as received from Forests in Sale Depôts.	3,450	188,392		
Asna logs ...	247	13,395		
Sissu logs ...	291	6,627		
Sál poles ...	19	160		
Miscellaneous poles ...	31	68	4,038	208,642
Total ...	...	...	185,709 and 2 stacks and 5,635 mds.	13,12,269
				13,12,269

FORM No. 62—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally, during the year 1882-83—(concluded).

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Balance at close of the year Sale Depôts.				
Bahraich Division, Bahramghat Depôt: Sál logs	365	20,310		
Asna logs	28	1,846		
Sissu logs	169	3,854		
Bahera logs	1	11		
Dhao logs	1	14		
Tikoe logs	1	10		
Pander logs	1	18		
Sál scantlings	156,776	15,032		
Sál sleepers	13,523	18,031		
Asna scantlings	797	194		
Deodar "	13	27		
Sissu "	90	39		
Sál poles	19	160		
Miscellaneous poles	161	458		
Sissu stumps	34	290		
Large boats	16			
Canoes	2			
Lucknow Depot, Sál scantlings	128	148		
Bahraich Division, Dharampur Depôt, Canoes ...	456	...	172,583	60,442
Locally.				
Kheri Division ... Sál logs	8,226	305,065		
Asna logs	652	21,613		
Sissu logs	316	8,466		
Sissu pieces	110	1,100		
Sál sleepers	57,926	74,897		
Sál scantlings ...	258	264		
Sál karis	153	231		
Sál pieces	40,538	81,076		
Large boats	41	...		
Canoes	699	...		
Firewood	Mds. 66	...	108,919	492,712
Bahraich ditto ... Sál logs	30	1,500		
Sissu logs	18	427		
Sál poles	77	231		
Sál sleepers	18,379	24,505	18,504	26,663
Gonda ditto ... Sál poles	226	678		
Sál koros	739	739	965	1,417
Gorakhpur ditto ... Sál ballas	1,008	2,016		
Sál koros	17	17		
Sál golas	85	170		
Sál sleepers... ...	11,943	15,924		
Sál scantlings ...	2,374	875		
Sál pieces	3 695	14,780		
Sál offcuts	9,413	18,826		
Boat	1	...	29,536	52,608
Pilibhit ditto ... Canoes	3	...	3	
In transit ... Large boats	25	...		
Canoes	3	...	28	
Total ...	...	...	330,538 and 66 maunds.	633,849
GRAND TOTAL ...	...	...	516,245 and 2 stacks and 5,701 maunds.	19,46,111

NAINI TAL:
The 5th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH; OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture, during the year 1882-83.

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
		c. ft.	Rs. a. p.	Rs. a. p.	
Pilibhit Division.	Sál timber, ridge, poles, &c....	2,188	456 2 9		
	Sál saplings	2,730	276 8 0		
	Oil crushers, &c.	105	9 2 9		
	Miscellaneous wood ...	1,290	133 12 0		
	Royalty on cart, &c. ...	325	212 0 0		
	Dues on carpenters, &c. ...	425	433 0 0		
	Beds, stool, dishes, &c. ...	879	67 2 9		
	Total, Timber ...	7,942	1,587 11 6	1,587 11 6	
	Firewood, 16,042 loads about...	Mds. 50,346	2,234 0 6		
	Charcoal, 2,167	,, 16,042	1,003 8 0		
	Dues on blacksmith, and charcoal burners.	4,880	740 0 0		
	Total, Firewood and Charcoal,	Mds. 71,268	3,977 8 6	3,977 8 6	
	Grazing cattle	4,211	481 11 0		
	Do. passing through forest,	11,815	344 9 3		
	Total, Grazing ...	16,026	826 4 3	826 4 3	
	Grasses	Mds. 3,916	363 11 1		
	Sál bark	800	160 0 0		
	Reed and sentha	90	18 0 0		
	Hides and horns	No. 1,691	107 5 9		
	Dues on shoe-makers ...	45	90 0 0		
	Minor produce	...	572 9 0		
	Rent on cultivation ...	Bigs. 331	41 6 3		
	Total, Minor Produce ...	...	1,348 0 1	1,348 0 1	
	Total, Revenue under II. ...	...	7,739 8 4	7,739 8 4	
Bhira Sub-division.	Sál timber	1,636	588 8 6		
	Kusum ,, ...	106	72 14 0		
	Amaltas	34	11 10 0		
	Bail	75	22 8 0		
	Jigna	1	0 11 0		
	Khaja	1	0 4 6		
	Dudhi	1	1 0 0		
	Miscellaneous wood and saplings,	1,638	39 11 0		
	Thorns...	2	0 4 0		
	Total, Timber ...	3,494	737 7 0	737 7 0	
	Firewood	Mds. 5,142	325 4 3		
	Total, Firewood ...	Mds. 5,142	325 4 3	325 4 3	
	Grazing cattle	22,413	3,235 11 6		
	Do. passing through forests,	1,348	56 10 0		
	Total, Grazing ...	23,761	3,292 5 6	3,148 14 6	
	Grasses	...	904 15 0		
	Fruits	...	186 4 0		
	Hides	...	394 7 6		
	Honey and wax	...	154 15 6		
	Canes	...	1 5 0		
	Lime	...	0 8 0		
	Manure	...	8 6 0		
	Total, Minor Produce ...	...	1,650 13 6	1,650 13 6	
	Total, Revenue under II. ...	...	6,005 14 3	5,862 7 3	

FORM No. 63—(Suggested).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture, during the year 1882-83—(continued).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs. a. p.	Rs. a. p.	
Kheri Division,	Sál timber, 602	c. ft. 21,265	6,677 4 4		
	Asna timber, 628	" 41,343	2,583 14 11		
	Total ...	62,608	9,261 3 3	5,875 0 1	
	Sál poles	No. 457	1,024 8 0		
	" saplings	2,750	38 8 0		
	Miscellaneous	...	1,882 4 9		
	Part payments	...	3,471 3 0		
	Total ...	No. 3,207	6,416 7 9	6,135 15 9	
	Total, Timber ...	No. 4,457	15,677 11 0	12,010 15 10	
	Firewood	Mds. 5,206	131 0 9		
	Charcoal	" 950	117 0 0		
	Total, Firewood and Charcoal...	Mds. 6,156	248 0 9	248 0 9	
	Grazing cattle	134,667	10,989 7 11	10,604 15 11	
	Total, Grazing ...	134,667	10,989 7 11	10,604 15 11	
	Minor produce	...	11,588 12 0	7,736 12 0	
	Total, Minor Produce ...	..	11,588 12 0	7,736 12 0	
	Total, Revenue under II. ...	...	38,503 15 8	30,600 12 6	
Bahraich Division.	Sál timber	c. ft. 35,400	14,915 0 2		
	Asna "	" 8,712	1,486 3 11		
	Sissu "	" 158	78 15 0		
	Jaman "	" 14,285	892 6 7		
	Kaim "	" 186	34 15 5		
	Mahua "	" 50	3 2 4		
	Asidh "	" 79	4 14 6		
	Bahera "	" 51	3 3 5		
	Total ...	c. ft. 58,921	17,418 13 4		
	Sál timber	No. 1,009	12,391 3 0		
	" poles	" 38,964	8,652 4 0		
	Asna timber	" 144	792 0 0		
	" poles	" 168	246 0 0		
	Kaim timber	" 25	30 0 0		
	Jaman "	" 354	364 12 0		Rs. 13,090-1-5 were realized and credited as 1st instalment and Rs. 18-4-4 remained unrealized at close of the year.
	Asidh "	" 12	12 0 0		
	Bahera "	" 2	2 0 0		
	Mahua "	" 5	5 0 0		
	Khair	" 21	2 10 0		
	Beds and other furniture ...	" 60	232 12 8		
	Wheel, nave, &c.	" 109	42 0 0		
	Wheel,...	" 466	1,111 0 0		
	Kusum timber	" 1,131	2,368 8 0		
	Unreserved poles, &c. ...	" 8,856	688 7 4		
	Total ...	No. 51,326	26,940 9 0	...	
	Total, Timber ...	...	44,359 6 4	31,251 0 7	
	Firewood	Mds. 39,966	254 4 7		
	Charcoal	" 3,320	412 7 3		
	Total, Firewood and charcoal,	Mds. 43,286	666 11 10	666 11 10	
	Bamboos	232	14 8 0		
	Total, Bamboos ...	232	14 8 0	14 8 0	
	Grazing of cattle	82,462	12,248 5 1	...	
	Total, Grazing ...	82,462	12,248 5 1	11,779 8 4	
	Fruits	...	55 0 0		Rs. 6,760 paid and credited 1st instalment, and Rs. 115 still due.
	Grasses	...	405 3 6		
	Wax and honey	...	407 0 0		
	Hides	...	1,659 0 0		
	Cowdung	...	10 0 0		
	Kankar	...	3 12 0		
	Khair	...	16,942 0 0		
	Total, Minor Produce ...	...	19,481 15 6	13,154 15 6	
	Total, Revenue under II. ...	...	76,770 14 3	56,866 12 3	

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture, during the year 1822-83—(continued).

Division.	Produce removed. Description.	Number of quantity.	Amount of revenue. Rs. a. p.	Amount actually realized during the year. Rs. a. p.	Remarks.
Gonda Division,	Sál timber 144 ...	c. ft. 2,654	750 15 5		
	Sissu „ 9 ...	„ 86	21 7 1		
	Asna „ 547 ...	„ 10,520	1,614 9 1		
	Tikoe „ 7 ...	„ 100	12 8 11		
	Mahua „ 2 ...	„ 43	5 6 11		
	Jaman „ 80 ...	„ 1,687	205 6 0		
	Bel „ 12 ...	„ 59	7 5 9		
	Total ...	15,249	2,617 11 2	...	
	Sál timber ...	No. 61	351 8 0		
	Sissu „ ...	„ 38	162 0 0		
	Dhao „ ...	„ 3	1 8 0		
	Mahua „ ...	„ 2	9 8 0		
	Kusum „ ...	„ 12	6 0 0		
	Jaman „ ...	„ 2	6 0 0		
	Miscellaneous poles ...	„ 2,256	1,913 0 0		
	Unreserved saplings ...	„ 26,938	821 4 0		
	Khair huts	„ 5	2 8 0		
	Royalty on carpenters ...	...	705 0 0		
	Total ...	No. 29,317	3,978 4 0	...	
	Total, Timber ...	...	6,595 15 2	6,850 8 1	
	Firewood	Mds. 64,460	455 1 5		
	Charcoal	„ 6,480	602 2 0		
	Total, Firewood and Charcoal...	Mds. 70,940	1,057 3 5	1,060 1 5	
	Grazing cattle	2,389	268 10 0		
	Ditto from Mahárája, Balrámpur.	...	6,961 1 5		
	Total, Grazing ...	...	7,229 11 5	7,229 11 5	
	Grasses	...	67 12 10		
	Mahua fruit and flowers ...	...	377 0 0		
	Wax and honey	...	34 0 0		
	Skins	...	75 0 0		
	Lime	...	66 3 0		
	Gold washing	...	15 0 0		
	Minor produce	...	56 11 0		
	Asna bark	...	0 9 0		
	Catechu manufacture ...	...	2,261 4 0		
	Total, Minor Produce ...	...	2,953 7 10	3,512 7 10	
	Total, Revenue under II. ...	...	17,836 5 10	18,652 12 9	
Gorakhpur Division.	Sál trees	28,049	25,045 5 7		
	Asna trees	28,890	5,973 6 1		
	Jaman	865	736 8 0		
	Mahua	301	1,023 0 0		
	Asidh	41	30 0 0		
	Miscellaneous	1,671	296 4 0		
	Kusum	718	298 0 0		
	Haldu	1	12 0 0		
	Total, Timber ...	60,536	33,414 7 8	36,285 3 0	
	Firewood 8,714 cart load about	Mds. 52,284	6,205 10 7		
	Firewood 1,040 men do. ...	„ 15,060	652 9 0		
	Ditto, Contract do. ...	„ 86,000	8,650 0 0		
	Charcoal, 20 men do. ...	„ 500	96 8 0		
	Total ...	„ 1,53,844	15,584 11 7	11,399 5 7	
	Grazing cattle	10,735	1,626 8 3	...	
	Total, Grazing ...	10,735	1,626 8 3	1,577 6 6	
	Grass	...	3,367 1 0		
	Fruits	...	39 0 0		
	Hides	...	213 0 0		
	Mahua flowers	...	18 0 0		
	Semal cotton	...	4 0 0		
	Total ...	...	3,641 1 0	3,462 7 0	
	Total, Revenue under II. ...	...	54,266 12 8	52,724 6 1	
	GRAND TOTAL ...	...	2,01,123 7 10	1,72,446 11 2	

NAINI TAL:
The 7th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX I. TO FORM No. 63—(Suggested).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Statement showing the amount realized on account of different classes of timber and other produce sold, during the year 1882-83, *under Budget head I.*

Division.		Description.	Number or quantity so'd.	Cubic feet.	Amounts realized and due on account of sales. Rs. a. p.	Remarks.
Bahramghat Division.	Bahramghat Depôt.	Sál logs	410	20,631	13,240 0 0	
		Asna „	40	2,074	1,166 9 0	
		Sissu „	87	1,951	1,238 0 0	
		Sál scantlings	77,467	64,574	1,14,657 2 10	
		Asna „	6,577	4,410	5,762 1 4	
		Deodar „	8	1	2 8 0	
		Sissu	243	65	192 11 3	
		Dhao	10	4	7 8 0	
		Sál offcuts	1,130	761	561 7 6	
		Do. do.	Mds. 385	...		
		Asna offcuts	427	450	270 12 0	
		Do. do.	Mds. 303	...		
		Pieces of sál logs ...	782	9,189	4,978 14 8	Total, Revenue under head I. Rs. a. p. 1,47,750 13 0
		Do. of asna logs ...	112	1,536	414 0 0	Deduct amount due but not realized during the year 11,710 15 0
						1,36,039 14 0
		Do. of sissu logs ...	2	6	5 11 1	
		Miscellaneous poles ...	4	12	1 4 0	Add amount realized on account of former years, 1,763 10 6
	Lucknow Depôt.	Mango fuel	Mds. 4	...	1 0 0	Total, shown as Revenue under head I. ... 1,37,803 8 6
		Charcoal	„ 273	...	135 13 3	
		Large boat	1	...	113 0 0	
		Canoes	4	...	100 0 0	
		Hire of boats	...	...	535 6 9	
		Sál scantlings	67	6,187	3,163 12 8	
		Asna do.	1	1	2 10 9	
		Sál offcuts	Mds. 2,279	...	1,190 9 11	
		Asna do.	„ 28	...	9 14 0	
		Total. No. ...	87,372	111,852	1,47,750 13 0	
		Mds. ...	3,267			
Kheri Division.		Sál logs	25	1,111	555 7 9	
		Sál scantlings	...	607	1,787 1 4	
		Sál sleepers	34,285	45,713	59,998 12 0	
		Do. rejected	300	480	337 8 0	
		Small boat	1	...	15 0 0	
		Old boats	6	...	87 0 0	
		Do. Canoe	1	...	14 0 0	
						Total shown as Revenue under head I. Rs. a. p.
		Total ...	34,618	47,831	62,794 13 1	
Gorakhpur Division.		Sál hallas	542	1,082	142 4 6	Total, revenue 905 4 6
		Boats	12	...	760 0 0	Deduct outstanding ... 12 2 9
						893 1 9
		Charcoal	Mds. 21	...	3 0 0	Amount realized on account of former years ... ... * ...
		Total ...	554	1,082	905 4 6	Total shown as revenue ... 893 1 9
		Mds. ...	21			* Rs. 184 shown last year as due on account of hire of boats have been realized and adjusted by the Assistant Comptroller General under VC.
Gonda Division.		Sál logs	7	119	119 5 3	
		Asna logs	21	304	152 0 0	
		Dhao axles	230	230	126 10 0	
		Total ...	258	653	397 15 3	Total shown as Revenue under head I.
Bahraich Division.		Sissu logs	2	47	39 3 8	
		Canoe	1	...	30 0 0	
		Total ...	3	47	69 3 8	Total shown as Revenue under head I.
		Number ...	122,805 and	161,455	2,11,918 1 6	
		Maunds ...	3,288			

Total, Revenue under head I.	2,11,918 1 6
Deduct amount due but not realized during the year ...	11,723 1 9
	2,00,194 15 9
Add amount realized on account of former years	1,763 10 6
Total shown as Revenue under head I.	2,01,958 10 3

Naini Tal:
The 9th July, 1883.

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX II. TO FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing the amount realized on account of different class of timber and other produce sold, during the year 1882-83, under Budget head III.

Division.	Description.	Number or quantity sold.	Cubic feet.	Amounts realized and due on account of sales.	Remarks.
				Rs. a. p.	
Bahramghat Division.	Drift sál logs	7	250	285 0 0	
	Total ...	7	250	285 0 0	Total shown as revenue.
Kheri Division,	Drift wood	1,339	5,356	1,353 15 3	Sold by auction.
	Total ...	1,339	5,356	1,353 15 3	Total shown as revenue.
Pilibhit Division,	Drift sál timber ...	121	726	362 10 0	
	Total ...	121	726	362 10 0	Total shown as revenue.
Bahraich Division.	Contract for drift timber of river Ghagra, for 1881-82,	...	...	900 0 0	Number or quantity of timber not known.
	Ditto ditto ditto ...	...	...	450 0 0	
	Ditto ditto of river Rapti,	...	...	105 0 0	
	Total ...	...	...	1,455 0 0	Total shown as revenue.
Gonda Division.	Drift and confiscated sál timber.	39	152	84 14 10	
	Ditto ditto Sissu ditto,	96	260	132 2 0	
	Ditto ditto Asna ditto,	91	420	59 8 10	
	Ditto ditto Khair ditto,	16	2	0 5 6	
	Ditto ditto Tikoo ditto,	34	405	50 8 10	
	Ditto ditto Dhao ditto,	18	18	3 0 0	
	Ditto ditto Miscellaneous do.,	1,750	2,821	65 15 4	
	Ditto ditto charcoal ...	Mds. 45	...	19 14 5	
	Total { No. ...	2,044	4,088	416 5 9	Total shown as revenue inclusive of 1st instalment.
	Total { Mds. ...	45			
Gorakhpur Division.	Drift sál timber ...	5	56	28 4 0	
	Total ...	5	56	28 4 0	
	GRAND TOTAL, { No. ...	3,516 and	10,476	3,901 3 0	
	GRAND TOTAL, { Mds. ...	45			

NAINI TAL:
The 9th July 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 64—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments from Depôt, during the year 1882-83.

Name of Department	Particulars of supplies	Amount supplied.	Rate. At	Rate. Per	Amount of revenue. Due.	Amount of revenue. Received.	Amount of revenue. Total outstanding.	Cost of Forest Department. Timber expenses under A.I.	Cost of Forest Department. Quota of all other expenses chargeable to timber, &c.	Cost of Forest Department. Total.	Comparison of revenue and expenditure. Surplus.	Comparison of revenue and expenditure. Deficit.	Remarks.
		Cubic foot.	Rs. a. p.	Cubic feet.	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p	
Bahraimghat Division.													
Public Works Department ...	Sál scantlings ...	9,279	2 5 7	...	21,812 0 0	16,480 0 0	5,332 0 0						
Ditto ditto ...	Asna ditto ...	3,075	1 7 9	...	4,598 0 0	4,598 0 0	...						
Ditto ditto ...	Asna logs ...	850	0 12 0	...	637 0 0	637 0 0	...						
Jail Departments ...	Sál scantlings ...	5,358	2 6 2	...	12,452 0 0	11,622 0 0	830 0 0						
Ditto ditto ..	Sissu ditto ...	63	3 0 0	...	189 0 0	189 0 0	...						
Ditto ditto ...	Asna ditto ...	398	1 8 0	...	598 0 0	598 0 0	...						
Irrigation Department ...	Sál scantlings ...	836	1 3 4	...	2,579 0 0	2,579 0 0	...						
Ditto ditto ...	Pieces of sál log ...	166	1 12 0	...	291 0 0	291 0 0	...						
Military Work Department	Sál scantlings ...	8,678	2 7 2	...	21,247 0 0	21,247 0 0	...	23,935 0 0	3,791 0 0	27,726 0 0	58,818 0 0	...	
Public Works. Department, Agriculture and Commerce.	Ditto	87	1 11 0	...	147 0 0	147 0 0	...						
Ditto ditto ...	Dhao scantlings ...	4	1 12 0	...	7 0 0	7 0 0	...						
Postal Department ...	Sál scantlings ...	162	2 3 9	...	362 0 0	362 0 0	...						
State Railway ...	Ditto	13,831	1 8 7	...	21,243 0 0	21,243 0 0	...						
Land Revenue Department,	Ditto	137	2 12 7	...	382 0 0	...	382 0 0						
	Total, Cubic feet ...	42,924	...	...	86,544 0 0	80,000 0 0	6,544 0 0	23,935 0 0	3,791 0 0	27,726 0 0	58,818 0 0	...	
Kheri Division.													
Public Works Department...	Sál scantlings ...	539	3 0 0	...	1,618 0 0	1,618 0 0	...						
Ditto ditto ...	Ditto	68	2 8 0	...	169 0 0	169 0 0	...						
Railway Department, North-Western Provinces.	Sleepers	34,285	1 12 0	...	59,999 0 0	59,999 0 0	...	24,578 0 0	2,044 0 0	26,622 0 0	35,501 0 0	...	
Public Works Department, Local	Ditto	No. 300	1 2 0	...	337 0 0	337 0 0	...						
	Total, Cubic feet ...	607 / No. 34,585	...	...	62,123 0 0	62,123 0 0	...	24,578 0 0	2,044 0 0	26,622 0 0	35,501 0 0	...	
Gonda Division.													
Public Works Department...	Sál logs, cubic feet ...	119	1 0 0	...	119 0 0	119 0 0	...	96 0 0	...	96 0 0	175 0 0	..	
District Engineer, Gonda ...	Asna ditto ...	304	0 8 0	...	152 0 0	152 0 0	...						
	Total, Cubic feet ...	423	...	...	271 0 0	271 0 0	...	96 0 0	...	96 0 0	175 0 0	...	
	GRAND TOTAL, Cubic feet, / No of pieces,	43,954 / 34,588	... / ...	... / ...	1,48,938 0 0	1,42,394 0 0	6,544 0 0	48,609 0 0	5,835 0 0	54,444 0 0	94,494 0 0	...	
									Deduct surplus (or deficit) ...		...	...	
									Balance for the Department ...		94,494 0 0	...	

NAINI TAL:
The 10th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 65—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1882-83.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.	
			Rs.			Rs.		Rs.	
Sál logs ...	771	41,832	31,374	365	20,310	15,232	...	...	
Asna logs ...	16	778	243	28	1,846	577	...	...	
Sissu logs ...	...	...	...	169	3,854	1,927	...	...	
Sál scantlings ...	1,59,513 and 2 stacks.	11,293	8,470	170,299	33,063	*24,797	...	...	Includes sleepers, 2 stacks of sál scantlings = 385 c. ft.
Do. (Lucknow depôts)	128	148	113	128	148	113	...	...	
Asna scantlings...	56	301	195	797	194	97	...	...	
Deodár ditto ...	24	33	25	13	27	20	...	...	
Sissu ditto ...	...	...	...	90	39	29	...	...	
Do. stumps ...	...	...	...	34	290	34	...	...	
Bahera log ...	...	...	...	1	11	5	...	...	
Dháo logs ...	...	...	...	1	14	7	...	...	
Tikoe log ...	...	...	...	1	10	5	...	...	
Pander log ...	...	...	...	1	18	9	...	...	
Miscellaneous poles.	246	...	46	180	618	34	...	...	
Charcoal, ...	Mds. 206	...	62	...	...	...	...	...	
Large boats ...	35	...	17,500	16	...	8,000	...	...	
Canoes ...	4	...	80	2	...	40	...	...	
Canoes (Dharmapur Bahraich).	465	...	9,300	458	...	9,160	...	...	
Total ...	161,258 and 2 stacks,	54,475 *738	67,408	172,583	60,442	60,086	...	7,322	
Mds. ...	206	55,213							

* Added cubic feet for poles and ballas not shown in last year's return.

NAINI TAL:
The 14th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 65A—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of timber and other produce at Depôt other than Sale Depôt, during the year 1882-83.

Description of timber.	On hand at commencement of the year.			Balance at close of the year.			Difference in value.	
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.
			Rs.			Rs.	Rs.	
Sál logs	11,866	456,118	2,28,059	8,256	306,565	1,53,282	...	...
Asna logs	820	31,317	3,915	652	21,613	2,709	...	...
Sissu logs	531	13,304	3,326	332	9,993	2,498	...	...
Sál sleepers	6,265	6,439	6,439	78,248	115,326	1,15,326	...	...
" scantlings ...	99	486	486	3,652	1,139	1,139	...	...
" karris	200	302	302	158	231	231	...	...
" offcuts	...	...	...	9,413	18,826	2,353	...	...
" poles	...	...	...	303	909	74	...	...
" pieces of logs ...	...	...	...	3,605	14,780	11,085	...	...
" " " or slabs,	...	...	...	40,538	81,076	5,067	...	...
" ballas	1,499	...	300	1,008	2,016	200	...	...
" koros	15	...	4	756	756	145	...	...
" goins	134	...	27	85	170	18	...	...
Firewood, ...	Mds. 65	...	7	Mds. 66	...	7	...	...
Large boats	53	...	21,000	66	...	25,000	...	...
Canoes	714	...	16,280	706	...	16,120	...	...
Total { Number ...	22,200	507,966	280,145	147,863	573,390	3,35,254	55,109	...
Total { Maunds ...	66			Mds. 66				

NAINI TAL:
The 14th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 65B—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of Live and Dead Stock for the year 1882-83.

	Description of Live and Dead Stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
		Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
			Rs.		Rs.	Rs.	Rs.	
	DIRECTION DIVISION.							
	Dead Stock.							
3	Tools ...	1	1	1	1	...	...	
4	Office furniture	53	150	56	151	...	...	
5	Tents and equipages	9	270	4	200	...	...	
7	Miscellaneous	4	4	4	4	...	...	
	Total	67	425	65	356	...	69	
	PILIBHIT DIVISION.							
	Live Stock.							
	Elephant	1	1,900	1	1,800	...	...	
	Bullocks	4	160	4	160	...	...	
	Dead Stock.							
1	Surveying and other instruments	22	13	22	16	...	...	
2	Machinery	2	31	2	31	...	...	
3	Tools	117	61	119	62	...	...	
4	Office furniture	11	62	11	62	...	...	
5	Tents and equipages	3	120	3	120	...	...	
7	Miscellaneous	284	506	314	589	...	...	
	Country carts	2	80	2	80	...	...	
	Buildings	7	3,500	8	7,875	...	...	
	Total	453	6,433	486	10,795	4,362	...	
	BHIRA SUB-DIVISION.							
	Live Stock.							
	Bullocks	4	160	4	160	...	...	
	Dead Stock.							
1	Surveying and other instruments	20	85	41	89	...	...	
	Tools ...	81	49	81	49	...	...	
4	Office furniture	36	89	37	94	...	...	
5	Tents and equipages	4	190	4	190	...	...	
6	Building materials, small stores and house fittings	152	396	197	412	...	...	
7	Miscellaneous	51	144	58	163	...	...	
	Country carts	2	80	2	80	...	...	
	Buildings	6	10,050	6	10,050	...	...	
	Total	356	11,243	430	11,287	44	...	

	Kheri Division.						
	Live Stock.						
	Elephants	3	7,400	2	4,800	...	...
	Bullocks	7	175	6	150	...	...
	Buffaloes	9	90	4	32	...	...
	Dead Stock.						
1	Surveying and other instruments	13	695	9	748	...	...
3	Tools	2,349	1,722	2,654	2,137	...	...
4	Office furniture	271	946	332	989	...	...
5	Tents and equipages	9	312	12	312	...	...
6	Building materials, small stores and house fittings ...	...	1,092	6,980	1,577	...	...
7	Miscellaneous	969	1,541	1,044	1,336	...	...
	Country carts	18	280	16	280	...	...
	Buildings	9	28,860	10	31,535	...	...
	Total ...	3,648	43,113	11,079	43,896	783	...
	Bahramghat Division.						
	Live Stock.						
	Buffaloes	9	90	8	80	...	...
	Dead Stock.						
1	Surveying and other instruments	49	121	49	121	...	...
2	Machinery	24	27,000	24	27,000	...	...
3	Tools	503	1,449	834	1,800	...	...
4	Office furniture	80	371	80	371	...	...
6	Building materials, small stores and house fittings ...	6	16	6	16	...	...
7	Miscellaneous	...	182	...	100	...	...
	Timber transport cart	2	250	2	250	...	...
	Country carts	5	50	8	110	...	...
	Buildings	2	10,000	2	10,000	...	...
	Total ...	680	39,529	1,013	39,548	19	...
	Bahraich Division.						
	Live Stock.						
	Elephants	1	1,000	1	2,600	...	...
	Buffaloes	1	10	1	10	...	...
	Dead Stock.						
1	Surveying and other instruments	40	368	45	208	...	...
3	Tools	992	568	997	335	...	...
4	Office furniture	157	414	163	497	...	...
5	Tents and equipages	37	782	37	431	...	...
6	Building materials, small stores and house fittings ...	207	204	237	154	...	...
7	Miscellaneous	531	73	549	64	...	...
	Buildings	13	22,000	14	22,574	...	...
	Total ...	1,979	25,419	2,044	26,873	1,454	...

FORM No. 65B.—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of Live and Dead Stock for the year 1882-83—(concluded).

	Description of Live and Dead Stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
		Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
	GONDA DIVISION.		Rs.		Rs.	Rs.	Rs.	
	Live Stock.							
	Elephant	1	1,500	1	1,200	...	...	
	Buffaloes	...	...	3	24	...	...	
	Dead Stock.							
1	Surveying and other instruments	1	20	1	20	...	...	
3	Tools	306	240	308	240	...	...	
4	Office furniture	43	250	45	250	...	...	
5	Tents and equipages	2	150	3	175	...	...	
6	Building materials, small stores and house fittings	10	4	10	4	...	...	
7	Miscellaneous	2	2	2	2	...	...	
	Buildings	2	4,000	2	4,000	...	...	
	Total ...	367	6,166	373	5,915	...	251	
	GORAKHPUR DIVISION.							
	Live Stock.							
	Elephant	1	1,500	1	1,200	...	...	
	Dead Stock.							
1	Surveying and other instruments	10	90	11	93	...	...	
2	Machinery	1	150	1	150	...	...	
3	Tools	148	143	142	178	...	...	
4	Office furniture	20,109	629	21,109	629	...	...	
5	Tents and equipages	5	400	5	400	...	...	
7	Miscellaneous	66	40	75	77	...	...	
	Buildings	5	4,800	6	5,800	...	...	7,437
	Total ...	20,345	7,752	20,350	8,527	775	...	—320
	GRAND TOTAL ...	27,895	1,40,080	35,840	1,47,197	7,117	...	7,117

NAINI TAL:
The 17th July, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDICES.

APPENDIX A.

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

List of Buildings, 1882-83.

Number.	Division.	Names.	Property of	Rent when occupied per month.	Amount paid by officer during the year.	Remarks.
					Rs. a. p.	
1	Pilibhit Division ...	Forest, 1st class double storied rest house, Mustafabad,	Forest Department,	... ...	...	
2	Ditto ...	Ditto, 3rd ditto, Mahofe ...	Ditto ...	... ...	...	
3	Ditto ...	Ditto ditto, Chorghatta ...	Ditto ...	... ...	...	
4	Ditto ...	Ditto ditto, Mustafabad ...	Ditto ...	... ...	...	
5	Ditto ...	Ditto ditto, Barahi ...	Ditto ...	... ...	...	
6	Ditto ...	Ditto ditto, Chuka ...	Ditto ...	... ...	...	
7	Ditto ...	Ditto ditto, Barua Kathara ...	Ditto ...	... ...	...	
8	Ditto ...	Ditto ditto, Haripur ...	Ditto ...	... ...	...	
9	Bhira Sub-division ...	Ditto, 1st do. ditto, Gola ...	Ditto ...	... ...	...	
10	Ditto ...	Ditto ditto, Marha ...	Ditto ...	... ...	...	
11	Ditto ...	Ditto, 3rd do. ditto, Marha ...	Ditto ...	... ...	...	
12	Ditto ...	Ditto ditto, Kishenpur ...	Ditto ...	... ...	...	
13	Ditto ...	Ditto ditto, Kukra ...	Ditto ...	... ...	...	
14	Ditto ...	Ditto ditto, Bhira ...	Ditto ...	... ...	...	
15	Kheri Division ...	Head quarters Lakhimpur office and rest house ...	Ditto ...	Rs. 25 by officer and Rs. 25 by office,	236 9 5	Rs. 25 to 31st July, 1882, and from 1st August, 1882, Rs. 30 by officers and Rs. 25 by office.
16	Ditto ...	Forest, 1st class double storied rest house, Dudua,	Ditto ...	... ...	...	
17	Ditto ...	Ditto ditto, Sathiana ...	Ditto ...	... ...	...	
18	Ditto ...	Ditto ditto, Fort Gourishah ...	Ditto ...	... ...	...	
19	Ditto ...	Ditto ditto, Shitabaghat ...	Ditto ...	... ...	...	
20	Ditto ...	Ditto ditto, Bilrain Dih ...	Ditto ...	... ...	...	
21	Ditto ...	Ditto, 2nd ditto, Dudua ...	Ditto ...	... ...	...	
22	Ditto ...	Ditto ditto, Sonaripur ...	Ditto ...	... ...	...	
23	Ditto ...	Ditto ditto, Naurangabad ...	Ditto ...	... ...	...	
24	Ditto ...	Ditto ditto, Bankatti ...	Ditto ...	... ...	...	
25	Bahramghat Division,	Bahramghat timber depôt ...	Ditto ...	... ...	...	
26	Ditto ...	Ditto ditto ...	Ditto ...	... ...	...	
27	Bahraich Division ...	Head quarters Bahraich office and rest house ...	Ditto ...	Rs. 30 by officer and Rs. 20 by office,	22 7 9	@ Rs. 30 per mensem, from 24th September to 16th October, 1882.
28	Ditto ...	Forest, 1st class double storied rest house, Nishangara,	Ditto ...	... ...	...	
29	Ditto ...	Ditto, 1st single storied house, Sujauli ...	Ditto ...	... ...	...	
30	Ditto ...	Ditto ditto, Motipur ...	Ditto ...	... ...	...	
31	Ditto ...	Ditto ditto, Kharaincha ...	Ditto ...	... ...	...	
32	Ditto ...	Ditto ditto, Sohelwa ...	Ditto ...	... ...	...	
33	Ditto ...	Ditto, 3rd ditto, Nishangara ...	Ditto ...	... ...	...	
34	Ditto ...	Ditto ditto, Motipur ...	Ditto ...	... ...	...	
35	Ditto ...	Ditto ditto, Kharaincha ...	Ditto ...	... ...	...	
36	Ditto ...	Ditto ditto, Charla ...	Ditto ...	... ...	...	
37	Ditto ...	Ditto ditto, Kakarderi ...	Ditto ...	... ...	...	
38	Ditto ...	Ditto ditto, Ponsonbyganj ...	Ditto ...	... ...	...	
39	Ditto ...	Ditto ditto, Sohelwa ...	Ditto ...	... ...	...	
40	Ditto ...	Ditto ditto, Bhartha ...	Ditto ...	... ...	...	
41	Gonda Division ...	Ditto ditto, Bhagwanpur ...	Ditto ...	... ...	...	
42	Ditto ...	Ditto ditto, Chandanpur ...	Ditto ...	... ...	...	
43	Gorakhpur Division,	Ditto, 2nd ditto, Chauk ...	Ditto ...	... ...	...	
44	Ditto ...	Ditto ditto, Sakhui ...	Ditto ...	... ...	...	
45	Ditto ...	Ditto ditto, Daebhar ...	Ditto ...	... ...	...	
46	Ditto ...	Ditto ditto, Mandhaulia ...	Ditto ...	... ...	...	
47	Ditto ...	Ditto ditto, Banspar ...	Ditto ...	... ...	...	
48	Ditto ...	Ditto, 3rd ditto, Ramgarh ...	Ditto ...	... ...	...	

Naini Tal.
The 16th July, 1883.

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX B.

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Statement of Forest produce given free to the privileged villages.

Division.	Name of produce given free.	Quantity.	Rate.	Amount.	Total of each section.
	Nawalkhar Sub-division.		Rs. a. p.	Rs. a. p.	Rs. a. p.
Kheri Division.	Saplings	712 Cart loads ...	1 0 0 each	712 0 0	
	Props and posts ...	370 ,, ...	1 0 0 ,,	370 0 0	
	Rafters thin	712 ,, ...	0 8 0 ,,	356 0 0	
	Sarawans reserved wood ...	25 ,, ...	3 9 0 ,,	87 8 0	
	Bandairs	277 ,, ...	1 0 0 ,,	277 0 0	
	Ploughs (Harkhod) ...	625 ,, ...	0 8 0 ,,	312 8 0	
	Firewood	3,697 ,, ...	0 1 6 ,,	346 9 6	
	Thatching grass ...	4,230 ,, ...	0 2 0 ,,	528 12 0	
	Reeds and Khagar grass ...	285 ,, ...	0 6 0 ,,	106 14 0	
	Munj	112 ,, ...	1 8 0 ,,	168 0 0	
	Bankas	4 ,, ...	1 0 0 ,,	4 0 0	3,269 3 6
	Khairigarh Sub-division.				
	Saplings	3,733 Cart loads ..	1 0 0 ,,	3,733 0 0	
	Props and Posts ...	1,337 ,, ...	0 8 0 ,,	1,337 0 0	
	Bandairs	564 ,, ...	0 8 0 ,,	564 0 0	
	Ploughs (Harkhod) ...	414 ,, ...	0 8 0 ,,	207 0 0	
	Thatching grass ...	4,566 ,, ...	0 2 0 ,,	570 12 0	
	Reeds and Khagar grass ...	3,216 ,, ...	0 6 0 ,,	1,206 0 0	
	Rafters thin	1,082 ,, ...	0 8 0 ,,	541 0 0	
	Munj	737 ,, ...	1 8 0 ,,	1,105 8 0	
	Firewood	2,682 ,, ...	0 1 6 ,,	251 7 0	9,515 11 0
	Bahraich Division.	Grand Total ...	...	...	12,784 14 6
Bahraich Division.	Koros	373,751 No. ...	0 1 0 ,,	23,359 0 0	
	Ridge poles	7,754 ,, ...	0 4 0 ,,	1,939 0 0	
	Sardals	21,331 ,, ...	0 2 0 ,,	2,666 0 0	
	Props	47,510 ,, ...	0 1 0 ,,	2,969 0 0	
	Posts	411,067 ,, ...	0 1 6 ,,	3,850 0 0	
	Withes	20,586 Head load ...	0 1 0 ,,	1,287 0 0	
	Grass	1,292 Cart load ...	0 4 0 ,,	323 0 0	
	Firewood	864 ,, ...	0 3 0 ,,	162 0 0	
	Ditto	5,426 ,, ...	0 1 6 ,,	508 0 0	
	Khagar	12,811 Head load ...	0 0 6 ,,	20 0 0	
	Firewood	115,692 ,, ...	0 0 1 ,,	603 0 0	
	Agai leave	442 ,, ...	0 0 9 ,,	21 0 0	
	Sarawan	440 No. ...	0 4 0 ,,	110 0 0	
	Khopi	5,440 ,, ...	0 0 3 ,,	85 0 0	
	Jangha	2,493 ,, ...	0 0 3 ,,	39 0 0	
	Machi	965 ,, ...	0 1 0 ,,	60 0 0	
	Rori	4,200 ,, ...	0 2 0 ,,	525 0 0	
	Okhil	344 ,, ...	0 2 0 ,,	43 0 0	
	Thorns for fencing ...	171,735 Bundles ...	0 0 1 ,,	894 0 0	
	Lathis	5 No. ...	0 4 0 ,,	1 0 0	
	Grass	417,509 Bundles ...	400 p. b.	1,044 0 0	
	Grass	273,487 Head load ...	0 0 3 each	4,273 0 0	
	Sentha	1,090 ,, ...	0 0 6 ,,	34 0 0	44,815 0 0
	Gonda Division.				
Gonda Division.	Unreserved Props ...	3,698 ...	0 4 6 ,,	924 8 0	
	Ditto Posts ...	9,518 ...	0 2 0 ,,	1,189 12 0	
	Ditto Poles ...	20,146 ...	0 1 0 ,,	1,258 12 0	
	Ditto Bati ...	10,635 Head load ...	0 1 0 ,,	664 11 0	
	Ditto Bat ...	23 Cart load ...	0 8 0 ,,	11 8 0	
	Ditto Sentha ...	1,223 Head load ...	0 1 0 ,,	76 7 0	
	Ditto ditto (reeds) ...	391 ,, ...	0 0 6 ,,	10 1 0	
	Ditto Parodha ...	2,901 ...	0 2 0 ,,	362 10 0	
	Ditto Bandairs ...	1,617 ...	0 4 0 ,,	404 4 0	
	Firewood	1,012 Head load ...	0 0 1 ,,	8 6 4	
	Ditto	2,618 Cart load ...	0 1 6 ,,	245 7 0	
	Long grass	17,197 Head load ...	0 0 1 ,,	89 9 1	
	Ditto	678 Cart load ...	0 2 0 ,,	84 12 0	
	Bankas	28 Head load ...	0 0 9 ,,	1 5 0	
	Unreserved Jotha ...	78 ,, ...	0 1 0 ,,	4 14 0	
	Ditto Khopi jangha...	292 ,, ...	0 1 0 ,,	18 4 0	
	Ditto Henga ...	60 ...	0 3 0 ,,	11 4 0	
	Ditto Poles ...	13 Cart load ...	1 0 0 ,,	13 0 0	
	Elephant's fodder ...	2,090 ...	0 1 0 ,,	130 10 0	5,510 0 5
	Bhira Sub-division.				
Bhira Sub-division.	Miscellaneous green wood ...	643 Cart load ...	0 8 0 ,,	321 8 0	
	Ridge poles	149 ,, ...	0 8 0 ,,	74 8 0	
	Uprights	161 ,, ...	0 2 0 ,,	20 2 0	
	Post	231 ,, ...	0 0 3 ,,	3 9 9	
	Firewood	1,130 ,, ...	0 1 6 ,,	105 15 0	
	Ditto	35 Head load ...	0 0 3 ,,	0 8 9	
	Thatching grass ...	1,217 Cart load ...	0 4 0 ,,	304 4 0	
	Ditto ditto ...	10 Head load ...	0 0 6 ,,	0 5 0	
	Thorns	100 Cart load ...	0 2 0 ,,	12 8 0	
	Ditto	5 Head load ...	0 0 6 ,,	0 1 3	
	Rafter, thin	4 ,, ...	0 0 6 ,,	0 2 0	
	Sentha	75 Cart load ...	0 4 0 ,,	18 12 0	
	Ditto	10 Head load ...	0 0 6 ,,	0 5 0	862 8 9
		Grand Total ...	...	...	63,972 7 3

Nain Tal:
The 6th August, 1883.

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX C.

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Summary showing timber and other produce cut and collected by Government Agency, and disposed of during the year 1881-82 and 1882-83.

Description.	Sold locally, i.e., not brought to Depôt.		Balance in hand at commencement of the year.		Brought to Depôt.		Total.		Removed by purchasers from Depôt.		Converted in Depôt.		Lost or written off as useless.		Used by the Department.		Total issues from Depôt.		Balance in hand at close of year.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
1881-82.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, cubic feet ...	97	85	569,005	2,79,010	263,491	1,80,089	832,496	4,59,099	128,226	1,24,732	133,245	47,638	...	...	8,584	3,782	270,055	1,76,152	562,441	2,82,947
Drift timber, „ ...	1,447	2,689	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saplings, No. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poles, &c. ...	...	...	2,231	439	168	130	2,399	569	308	152	...	...	...	...	193	40	501	122	1,898	377
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds. ...	...	...	8,203	861	70	14	8,273	875	8,107	858	...	...	100	10	...	...	8,207	868	66	7
Charcoal, „ ...	1,010	144	547	52	...	42	547	97	...	...	...	...	337	34	4	1	341	35	206	2
Minor produce ...	1,311	265	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, 1881-82 ...	3,865	3,183	579,986	2,80,365	263,729	1,80,275	843,715	4,60,640	136,641	1,25,742	133,245	47,638	437	44	8,781	3,823	279,104	1,77,247	564,611	2,83,393
1882-83.																				
Timber, cubic feet ...	700	467	562,441	2,82,947	1,151,752	6,83,375	1,714,193	9,66,322	159,671	2,09,544	914,569	4,16,272	5,673	2,352	4,907	1,612	1,084,820	6,29,760	629,373	3,36,542
Drift timber, „ ...	10,226	2,161	...	...	250	285	250	285	250	285	...	...	...	...	...	...	250	285	...	...
Saplings ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poles, &c., No. ...	...	...	1,898	377	1,096	257	2,994	634	546	143	...	...	4	1	112	19	662	163	2,332	471
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds. ...	...	...	66	7	4	1	70	8	4	1	...	...	...	...	...	...	4	1	66	7
Charcoal, „ ...	66	23	206	62	67	74	273	136	273	136	...	...	...	...	...	...	273	136	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, 1882-83 ...	17,292	2,621	564,611	2,83,393	1,153,169	6,83,992	1,717,780	9,67,385	160,744	2,10,109	914,569	4,16,272	5,677	2,353	5,019	1,631	1,086,009	6,30,365	631,771	3,37,020
1881-82 ...	3,865	3,183	579,986	2,80,365	263,729	1,80,275	843,715	4,60,640	136,641	1,25,742	133,245	47,638	437	44	8,781	3,823	279,104	1,77,247	564,611	2,83,393
1882-83 ...	17,292	2,621	564,611	2,83,393	1,153,169	6,83,992	1,717,780	9,67,385	160,744	2,10,109	914,569	4,16,272	5,677	2,353	5,019	1,631	1,086,009	6,30,365	631,771	3,37,020
Difference ...	+13,427	−562	−15,375	+3,028	+889,440	+5,03,717	+874,065	+5,06,745	+24,103	+84,367	+781,324	+3,68,634	+5,240	+2,309	−3,762	−2,192	+806,905	+4,53,118	67,160	53,627

Naini Tal:
The 6th August, 1883.

E. WOOD, Captain,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX D.

Abstract of working plan, Pilibhít Division, 1882-83.

Budget Heads.	Sanctioned Estimate.	Regular Estimate.	Actuals.	Remarks.
Receipts.	Rs.	Rs.	Rs.	
II.—Timber and other produce removed from the forests by consumers or purchasers.				
a.—Timber	2,000	1,500	1,588	Dead reserved wood and poles, and green unreserved wood.
b.—Firewood and charcoal ...	4,000	5,000	3,978	Fuel and charcoal, principally from dead wood.
d.—Grazing and fodder grass ...	700	700	826	
e.—Other minor produce ...	2,000	1,100	1,548	Grass, wax, honey, flowers, fruits, skins, &c.
III.—Confiscated, drift and waif wood ...	1,000	1,000	363	
V.—Miscellaneous—				
a.—Fines and forfeitures ...	50	100	70	
b.—Refunds	50	...	16	
c.—Other sources	200	100	119	
Total, Receipts ...	10,000	9,500	8,308	
Expenditure.				
II.—Timber and other produce removed from the forests by consumers or purchasers.	3,000	3,000	2,916	Temporary establishment.
III.—Confiscated, drift and waif wood ...	1,000	...	...	
VI.—Live and dead stock—				
a.—Purchase of cattle ...	50	...	...	
b.—Feed and keep of cattle ...	1,000	950	827	
c.—Plant, tools and instruments ...	100	50	129	
VII.—Communications and buildings—				
a.—Roads and bridges ...	2,000	1,800	1,180	Repairs of 69 miles 5 furlongs of old roads and 19 miles 5 furlongs of new road.
b.—Buildings	3,000	3,900	4,633	Annual repairs Rs. 70, completing 3rd class, rest-house Rs. 300, completing Mustafabad rest-house Rs. 2,820.
c.—Other works	400	400	552	Completing three wells.
VIII.—Demarcation, improvement, and extension of forests.				
a.—Demarcation	500	300	585	4 miles @ Rs. 50=200, 3 miles @ Rs. 25=75, and 8 miles 2 furlongs @ Rs. 25=206-4-0; total, Rs. 481-4-0.
b.—Compensation for land and rights,	100	100	...	
c.—Surveys and working plans ...	50	50	24	
d.—Plantations	...	350	312	
e.—Protection from fire ...	2,000	1,800	1,603	Grass cutting 8 miles 25′ broad; grass cutting 42 miles 2 furlongs, 24′ broad cutting; 19 miles 3 furlongs, 7 new road, establishment Rs. 1,116.
f.—Other works	...	50	29	
IX.—Miscellaneous—				
c.—Other charges	150	200	63	
Total, Conservancy and Works ...	13,350	12,950	12,853	

Abstract of working plan, Bhira Sub-Division, 1882-83.

	Rs.	Rs.	Rs.	
Receipts.				
II.—Timber and other produce removed from the forests by consumers or purchasers.	...	...	...	
a.—Timber	600	700	738	Dead reserved wood and poles and green unreserved wood.
b.—Firewood and charcoal ...	150	200	325	Fuel from dead wood.
d.—Grazing and fodder grass ...	4,500	3,800	3,149	
e.—Other minor produce ...	1,500	2,000	1,651	Grass, wax, honey, flowers, fruits, skins, &c.
V.—Miscellaneous—				
a.—Fines and forfeitures ...	20	20	25	
b.—Refunds	5	5	...	
c.—Other sources	100	150	196	
Total, Receipts ...	6,875	6,875	6,084	
Expenditure.				
II.—Timber and other produce removed from the forests by consumers or purchasers.	2,000	2,000	1,809	Temporary establishment.
VI.—Live and dead stock ...	...	...	...	
b.—Feed and keep of cattle ...	200	200	181	
c.—Plant, tools and instruments ...	50	50	35	
VII.—Communication and buildings ...	...	...	...	
a.—Roads and bridges ...	2,000	1,800	1,950	Repairs of 23 miles old road, and 21 miles 4 furlongs of new road; 3 old bridges repairing and making a new one.
b.—Buildings	200	200	112	Repairs of 6 rest-houses, making a new hut and pay of chaukidár of one rest-house.
c.—Other works	500	500	528	14 old wells clearing, and making two new wells.
VIII.—Demarcation, improvement and extension of forests.	...	...	...	
a.—Demarcation	500	500	500	Ditching 20 miles @ Rs. 25=500.
c.—Surveys and working plans ...	50	50	...	
d.—Plantations	50	100	35	
e.—Protection from fire ...	2,000	2,000	2,000	Grass cutting 43 miles 3 furlongs, and cutting new fire lines 5 miles, and making one well for watchers, and establishment, Rs. 1,128.
IX.—Miscellaneous—				
a.—Refunds	10	10	...	
b.—Law charges	10	10	13	
c.—Other charges	100	150	140	
Total, Conservancy and Works ...	7,670	7,570	7,303	

APPENDIX D.

Abstract of working plan, Bahramghat Depôt, 1882-83—(continued).

No regular plan of this Depôt is submitted to Government, as only timber operations such as supplying indents for timber to Public Departments and cutting up timber for sale, are carried on; and as the whole transactions of the Depôts fall under head B. of correspondence, therefore the submission of the plans through the district authorities is not considered necessary.

The figures are given from the sanctioned and regular Budget.

Budget Heads.	Sanctioned Estimate.	Regular Estimate.	Actuals.	Remarks.
Receipts.	Rs.	Rs.	Rs.	
I.—Timber and other produce removed from the forests by Government agency—				
a.—Timber	1,48,700	1,56,700	1,37,667	Sale of logs, scantlings (sleepers) offcuts, &c., (about 11,000 outstanding by Department Public Works.)
b.—Firewood and charcoal ...	...	130	137	
III.—Confiscated drift and waif wood ...	...	...	...	
V.—Miscellaneous	...	33	285	
a.—Fines and forfeitures ...	...	...	2	
c.—Other sources	300	457	618	Carriage of timber.
Total, Receipts ...	1,49,000	1,57,300	1,38,709	
Expenditure.				
I.—Timber and other produce removed from the forests by Government agency—				
a.—Timber	31,240	31,120	23,935	Sawing up timber for indents and other sales, and also sleeper operations. Temporary Establishment.
VI.—Live and dead stock—				
a.—Purchase of cattle ...	...	20	...	Purchase of buffaloes.
b.—Feed and keep of cattle ...	600	600	502	Feed and keep of buffaloes.
c.—Plant, tools and instruments ...	4,000	4,000	2,358	Purchase of new boiler.
VII.—Communications and buildings—				
a.—Roads and bridges ...	740	740	693	Repairing old depôt roads, and making 3 new metalled roads within the compound of the Depôt.
b.—Buildings	420	420	390	Making 2 new tiled sheds for storing timber, and also one hut for watchers in Saw Mill Company's compound.
c.—Other works	20	20	...	
IX.—	...	...	...	
c.—Other charges	80	80	...	
Total, Conservancy and Works ...	37,100	37,000	27,908	

Abstract of working plan, Kheri Division (trans-Sarda), 1882-83.

Receipts.	Rs.	Rs.	Rs.	
I.—Timber and other produce removed from the forests by Government agency—				
a.—Timber ...	15,000	95,000	62,795	Scantlings and sleepers.
II.—Timber and other produce removed from forests by consumers or purchasers.				
a.—Timber	16,000	16,000	12,011	Dead reserved timber, poles, and saplings, and green unreserved wood.
b.—Firewood and charcoal ...	250	250	248	
d.—Grazing and fodder grass ...	10,000	10,000	10,605	
e.—Other minor produce ...	5,425	7,000	7,737	Grass, wax, honey, flowers, fruits, skins, and catechu.
III.—Confiscated drift and waif wood ...	1,000	1,200	1,354	
V.—Miscellaneous—				
a.—Fines and forfeitures ...	50	50	...	
b.—Refunds	100	100	721	
c.—Other sources	2,560	725	2,433	Dues from bridge of boats.
Total, Receipts ...	50,325	1,30,325	97,904	
Expenditure.				
I.—Timber and other produce removed from the forests by Government agency—				
a.—Timber	59,000	1,44,950	1,00,003	Selling 3,000 trees, carting and rafting 3,500 logs, making 110 canoes. Sawing 5,300 sleepers, contingencies and establishment Rs. 2,400, besides this sleeper operations since sanctioned, for which provision for Rs. 80,000 was made in the regular budget.
II.—Timber and other produce removed from the forests by consumers or purchasers.	1,000	1,000	1,428	Temporary protective establishments for collections.
III.—Confiscated drift and waif wood ...	50	150	253	Establishment on collections.
VI.—Live and dead stock—				
a—Purchase of cattle ...	225	2,725	32	Purchase of bullocks, (no elephant purchased).
b—Feed and keep of cattle ...	2,700	2,700	2,076	
c.—Plant, tools and instruments ...	500	500	819	Making 6 new carts, Rs. 250, and purchase of tools.
VII.—Communications and buildings—				
a.—Roads and bridges ...	3,000	3,000	6,585	Repairs of 235 miles of old road, and 27 bridges and making 6 miles of new road.
b.—Buildings	4,000	4,000	6,777	Repairs of 9 rest-houses and out-offices, and building 3 new ranges of out-houses, and completing Dudua and Naurangabad rest-houses.
c.—Other works	1,000	500	1,202	Clearing and repairing 30 wells, completing 5 wells in course of construction and commencing 4 new wells.
VIII.—Demarcation, improvement and extension of forests—				
a.—Demarcation	500	...	...	Repairs of 11 miles of boundary lines (paid by District officer.)
c—Surveys and working plans ...	50	...	...	
d.—Plantations	1,000	1,000	829	
e.—Protection from fire ...	2,700	2,700	2,701	Establishment, Rs. 2,200, firing grass outside the closed block, Rs. 500.
f.—Other works	500	500	...	
IX.—Miscellaneous—				
a.—Refunds	50	50	...	
b.—Law charges	50	50	1	
c.—Other charges	300	300	692	
Total, Conservancy and Works ...	76,625	1,64,125	1,23,398	

APPENDIX D.

Abstract of working plan, Bahraich Division, 1882-83.

Budget Heads.	Sanctioned Estimate.	Regular Estimate.	Actuals.	Remarks.
Receipts.	Rs.	Rs.	Rs.	
I.—Timber and other produce removed from the forests by Government agency—				
a.—Timber	500	10,500	69	Sale of boats, (in regular estimate sleeper operations, sleepers not credited to cash yet.)
II.—Timber and other produce removed from the forests by consumers or purchasers.				
a.—Timber	42,000	42,000	31,251	Green and dead sál trees, logs and poles, green unreserved wood.
b.—Firewood and charcoal ...	500	500	667	
c.—Bamboos	...	...	14	
d.—Grazing and fodder grass ...	12,000	10,000	11,780	
e.—Other minor produce ...	7,000	12,000	13,155	Grass, wax, honey, flowers, fruits, skins and catechu.
III.—Confiscated drift and waif wood ...	2,000	1,500	1,455	
IV.—Miscellaneous—				
a.—Fines and forfeiture	...	...	10	
c.—Other sources	600	300	444	
Total, Receipts ...	64,600	76,800	58,845	(Sleepers not credited in this year.)
EXPENDITURE.				
A.—Conservancy and works.				
I.—Timber and other produce removed from the forests by Government agency.				
a.—Timber	100	10,100	3,839	Temporary establishment, (sleeper operations added in regular estimate.)
Timber and other produce removed from the forests by consumers or purchasers.	2,000	2,000	1,912	Temporary establishment.
VI.—Live and dead stock—				
b.—Feed and keep of cattle ...	1,200	1,200	529	
c.—Plant, tools and instruments ...	350	100	155	Purchase and repairs of tools, plant, &c.
VII.—Communication and buildings—				
a.—Roads and bridges ...	2,000	2,000	797	Repairs to old roads, Rs. 500, and new roads 25 miles at Rs. 60 = Rs. 1,500.
b.—Buildings	3,000	3,000	675	Repairs to buildings, Rs. 200, and one new rest-house, Rs. 2,800 (no time available.)
c.—Other works	600	1,050	22	Clearing out old wells, and making one new well.
VIII.—Demarcation, improvement, and extension of forests—				
a.—Demarcation	500	2,000	1,357	Ditching 30 miles, and erecting wooden posts.
b.—Surveys and working plans ...	50	20	1	
c.—Plantations	1,100	600	430	
e.—Protection from fire ...	2,000	2,000	1,618	Fencing closed block, and conservancy establishment.
f.—Other works	600	650	731	
IX.—Miscellaneous—				
a.—Refunds	50	50	...	
b.—Law charges	50	...	...	
c.—Other charges	300	130	67	
Total, Conservancy and Works ...	13,900	24,900	12,333	

Abstract of working plan, Gonda Division, 1882-83.

Receipts.	Rs.	Rs.	Rs.	
I.—Timber and other produce removed from the forests by Government agency.				
a.—Timber	...	500	398	Green timber, and dhao axles.
II.—Timber and other produce removed from the forests by consumers or purchasers.				
a.—Timber	15,000	13,000	6,851	Dead and green wood of reserved and unreserved kinds, (Mr. Rebsch away from Division over half the year).
b.—Bamboos, firewood and charcoal ...	1,000	1,200	1,060	
d.—Grazing and fodder grass ...	6,000	7,266	7,230	
e.—Other minor produce ...	1,000	3,000	3,512	Grass, wax, honey, flowers, fruits, skins, and catechu.
III.—Confiscated drft and waif wood ...	500	800	416	
V.—Miscellaneous—				
a.—Fines and forfeitures ...	100	100	27	
c.—Other sources	200	200	161	
Total, Receipts ...	23,800	26,066	19,655	

APPENDIX D.

Abstract of working plan, Gonda Division, 1882-83—(concluded).

Budget Heads.	Sanctioned Estimate	Regular Estimate.	Actuals.	Remarks.
Expenditure.	Rs.	Rs.	Rs.	
I.—Timber and other produce removed from the forests by Government agency.				
a.—Timber	...	...	121	Felling of timber departmentally.
II.—Timber and other produce removed from the forests by consumers or purchasers.	400	390	382	Temporary establishment.
III.—Confiscated drift and waif wood ...	100	65	56	
VI.—Live and dead stock—				
a.—Purchase of cattle	...	...	24	(Purchase of three buffaloes).
b.—Feed and keep of cattle ...	650	650	518	Feed and keep, and elephant gear, &c.
c—Plant, tools and instruments ...	50	50	49	
VII.—				
a.—Roads and bridges	1,000	1,000	688	Repairs of roads and bridges, and new roads ten miles in Ramgarh and Chandanpur.
b.—Buildings	1,550	1,500	2,038	Completing Chandanpur rest-house.
c.—Other works	250	100	243	Repairs of wells.
VIII.—Demarcation, improvement and extension of forests.				
a.—Demarcation	200	200	51	Ditching 3 feet boundary line in Tulsipur.
c.—Surveys and working plans ...	35	...	...	
d.—Plantations	...	230	...	
e.—Protection from fire ..	300	300	183	
f.—Other works	450	450	192	Creeper cutting.
IX.—Miscellaneous—				
a.—Refunds	50	50	...	
b.—Law charges	50	50	...	
c.—Other charges	100	100	5	
Total, Conservancy and Works .	5,185	5,135	4,550	

Abstract of working plan, Gorakhpur Division, 1882-83.

Receipts.	Rs.	Rs.	Rs.	
I.—Timber and other produce removed from the forests by Government agency.				
a.—Timber	...	50,300	890	Sale of boats and ballas (sleeper operations in regular estimate, amount not shown in cash in the year.)
b.—Firewood and charcoal ...	...	50	3	
II.—Timber and other produce removed from the forests by consumers or purchasers.				
a.—Timber	30,000	37,184	36,285	Dead and green reserved wood, and revenue from thinnings.
b.—Firewood and charcoal ...	7,000	8,000	11,399	Fuel from cuttings, and charcoal from dead wood.
d.—Grazing and fodder grass ...	9,200	1,500	1,577	
e.—Other minor produce	5,000	2,000	3,462	Grass, fruits, wax, honey, and other minor produce.
III.—Confiscated drift and waif wood ...	...	...	28	
V.—c.—Other sources	200	100	1,280	Sale of ijázatnamas.
Total, Receipts ...	51,400	99,184	54,925	
Expenditure.				
I.—Timber and other produce removed from the forests by Government agency				
a.—Timber	100	50,100	7,012	Temporary establishment and repairs of boats, addition made in regular estimate for sleeper operations, reduced as Patna-Bahraich arrangements failed.
II.—Timber and other produce removed from the forests by consumers or purchasers.	1,800	1,000	283	Temporary establishment.
VI.—Live and dead stock—				
b.—Feed and keep of cattle ...	650	650	665	Repairs of gear and usual feed and keep.
c—Plant, tools and instruments ...	300	300	55	Purchase of one shouldari.
VII—Communications and buildings—				
a.—Roads and bridges	1,500	1,500	392	Repairs to old road 25 miles, completing new roads (2 miles) and bridges 2.
b.—Buildings	2,000	2,500	1,787	Repairs to 6 rest-houses, completing 2 new rest-houses, and collecting materials for new rest-houses.
c—Other works	500	500	94	Completing one well, commencing one, and repairing old wells.
VIII.—Demarcation, improvement and extension of forests.				
a.—Demarcation	100	500	78	Repairs of old boundary pillars.
b—Compensation for land and rights,	...	2,000	...	
c.—Surveys and working plans ...	20	20	1	
d.—Plantations	2,000	2,000	2,060	Sissu plantations.
e.—Protection from fire	900	900	1,625	Clearing fire lines, and fire conservancy establishment.
f—Other works	1,400	1,400	2,846	Creeper cutting and thinning.
IX—Miscellaneous—				
c.—Other charges	100	100	62	Repairs of tents.
Total, Conservancy and Works ...	11,370	63,570	16,957	(About Rs. 7,000 sleeper operations.)

NAINI TAL:
The 7th August, 1883.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

SCHOOL CIRCLE REPORT.

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N.-W. PROVINCES AND OUDH.

SCHOOL CIRCLE.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION
FOR THE YEAR 1882-83.

By Major F. Bailey, R.E., Conservator of Forests.

INTRODUCTION.

Staff of Officers.

1. During the year Mr. Bryant was transferred to the Central Circle of these Provinces, Mr. Murray to Burma and Mr. Lowrie to Ajmere; Mr. Clifford joined from England, and the staff of officers at the close of the year stood thus :—

Mr. W. R. Fisher	...	Deputy Director Forest School, and Dehra Dún division.
Mr. E. McArthur Moir	...	Tons division.
Mr. E. E. Fernandez	...	Working Plan Branch.
Mr. A. Smythies	...	On furlough.
Dr. H Warth	...	Professor of Natural Sciences.
Mr. A. F. Brown	...	Attached to Working Plan Branch.
Mr. N. Hearle	...	Jaunsár and Sahárunpur divisions.
Mr. M. H. Clifford	...	Attached to Dún division.
Mr. A. G Hobart-Hampden	...	On deputation in the Central Circle of these Provinces.
Babu Karuna Nidhan Mukerji	...	Attached to Dún division.

Mr. McArthur Moir was on deputation in the Panjáb from the 16th of January, 1883, to the end of the financial year (he rejoined on the 2nd April). The Conservator has, generally speaking, had cause to be highly satisfied with the services rendered by these officers.

Forest School.

2. *Course of theoretical and practical instruction.*—The second course of theoretical instruction was held from the 1st July to the 31st October; it was attended by 24 officers of the subordinate and 9 of the superior staff, the latter of whom remained until the 15th September only. The instruction was given by the officers attached to the Circle, except that in botany, which was given by Mr. J. F. Duthie, Superintendent of the Botanical Gardens at Sahárunpur. A special report on the course of instruction was submitted to Government on the 18th November. At the close of the course, 5 of the subordinates left the school altogether, 5 went to undergo practical training in their own provinces, while 14 remained in this Circle, and were attached for practical instruction either to the forest divisions or to the Working Plans Branch.

3. *School buildings, herbarium and library.*—The alterations referred to last year, as required to improve the buildings, have been carried out at a cost of Rs. 791, and a great improvement has thereby been effected. Besides additions made locally, the herbarium has received valuable collections of specimens of trees and plants from Southern India, presented by Mr. Brandis, and from the Cuddapah and Karnool districts of Madras, presented by Mr. Gamble. One hundred and thirty-nine volumes were added to the library.

4. *Professor of natural sciences.*—Dr. Warth again undertook the instruction in physics, chemistry, mineralogy and geology, and a few additions were made to the collection of physical apparatus. Government having directed that various kinds of wood should be analysed with a view to the utilization of the potash they contain, specimens of 15 kinds of wood were analysed by the students under Dr. Warth's supervision, and the results were published in the *Indian Forester* for December last. Some hydrogen sodium sulphite was made in the laboratory with a view to testing its efficacy as a febrifuge. The Superintendent of the Geological Survey presented 101 minerals to the museum, which now contains 480 specimens, comprising 146 varieties; Dr. Warth has prepared a descriptive catalogue of these, and has labelled and exhibited them in the glass cases in such a manner that they are readily accessible to the students; there are now 15 large wooden models of crystals. The geological collection numbers about 600 specimens; these are divided into 10 groups, for 9 of which catalogues have been prepared. Additions were made by Mr. Heinig, from the Hazaribágh district of Bengal, and by Mr. Gamble, from the Sonthal Parganas; the whole collection will shortly be exhibited in glass cases.

Dr. Warth visited a portion of the Western Dún, where it was reported that coal had been found; the outcrop was found to be merely coal or lignite in nests within the tertiary sandstone, and Dr. Warth is of opinion that it could not be utilized, and that there is no reason whatever for supposing that a larger accumulation would be found at a greater depth.

The meteorological observations were continued, and some extremely interesting results were obtained. The observations of temperature and moisture were made both in a standard pattern shed, in which the instruments are at a height of 4′ from the ground, and also in a shed which is elevated on a scaffolding of bamboos and iron, so that the instruments are 66′ above the ground, the rain-gauge being 4′ higher. A comparison of the results obtained at the two stations shows that the temperature at night is very much higher, while the air is much drier, at the elevated than at the low station; the difference of temperatures is believed to exceed anything that has hitherto been recorded in Europe. The observations at the elevated station were commenced in October, and details for that month, with those for November and December, were published in the *Indian Forester* for March; the results of five months' observations, from October to February, have also been published in the Proceedings of the Asiatic Society of Bengal for April last; and an abstract of the results obtained at the standard pattern shed during the calendar year 1882, together with a comparative statement of the results obtained at the two stations for the six months from October to March, are now given in appendix (A.) From these statements it will be seen that at the elevated station the dry minimum thermometer showed an average increase of 7°·2, and that the dry maximum thermometer showed an average decrease of 1°·7, as compared with the readings of similar instruments at 4′ from the ground; while the daily mean of the readings of dry bulb thermometers obtained at the elevated station exceeded that at the low station by 2°·9. The rainfall at 70′ from the ground was less by 5·4 per cent. than that at the surface of the ground. The question of erecting pairs of stations inside and outside the forest is still pending; in connection with this subject, Dr. Warth has written a paper showing the results of experiments made in Europe, and has published it in the *Indian Forester* for June, 1883.

In order to ascertain the amount of rain-water which percolates to a depth of 6′ below the surface of the ground, two metal plates were sunk at that depth, and arrangements were made to measure the water which reached them. One of the plates was found to be defective, and was repaired; but from observation of the other it appeared that out of a total rainfall at the surface of 63″·19 only 2″·5, or about 4 per cent., was arrested in its downward flow. No percolation occurred except during July and August.

In order to test the durability of timber, slabs of 31 different kinds have been buried in the ground, one-half of their length protruding; the first of these were buried in August, 1881, and their condition will be reported on next year.

During the month of December Dr. Warth went to Calcutta to see the Alipur observatory and to confer with Mr. Blanford regarding the meteorological work at the Forest School; also to visit the Calcutta Museum and to obtain additional specimens for the museum at Dehra. On his return journey he visited the iron works at Barakar. His report on these tours was submitted to Government.

General account of the forests, main outlines of operations and principal improvements called for.

5. *Dehra Dún.*—In this division the areas under the principal kinds of trees are roughly estimated to be as follows :—

	Acres.
i.—Sál and its associates	146,000
ii.—Khair and sissu	14,000
iii.—Dry mixed forests (bákli, semla, &c.)	7,000
iv.—Damp mixed forests (jánsu, tún, &c.)	3,000
v.—Blanks	7,724
Total ...	177,724

For many years before the forests came under the control of the Forest Department, timber merchants and others had constantly carried on irregular, uncontrolled and unsystematic thinnings of both mature and growing trees over the entire area. Fellings of this nature have been stopped for the last 12 years or more, but it is probable that at the time the Forest Department took charge, the stock of sound mature trees, and most of the growing trees of marketable size, had already been worked out, and there has not yet been time for the younger classes to grow up. The sál forests are however fairly well stocked with a crop of young poles, both stool-shoots and seedlings, with a considerable quantity of injured or misshapen trees of greater age scattered here and there among them, and it may be said that the whole area of the forests except the blanks, *i.e.*, 170,000 acres, is now more or less covered with growing trees. Thinnings conducted on various systems have been made by the Department over an area of about 30,000 acres in Lachiwála, Bullawála and the neighbouring forests, also in the forests near Hardwár (for the Ganges Canal bunds), and in the Tehri-Garhwál leased forests; and as the cutting down of the damaged and useless trees is desirable from all points of view, it has been decided, subject to the provisions of the working plan now in course of preparation, to continue their removal systematically over the whole area, but this operation has not yet been brought to a close in any part of the forests. Any increase in the yield of mature trees is out of the question for some years to come, but the damaged trees above referred to will furnish the principal timber work for the next 20 years; when felling those trees care must be taken not to overstock the market, but to maintain a constant revenue. As there is a considerable local demand for fuel, both for lime-burning, brick-making and for domestic use, it is hoped that the proceeds of these fellings will be remunerative, but facilities for export must be afforded wherever they do not at present exist. It was stated in last year's report that merchants from Jawálapur, Saháranpur and Meerut are the principal purchasers of the timber, which is chiefly of small size, suitable for building natives' houses, and that there is a ready sale for it; but timber of large size is much wanted for European houses, trees of suitable size and description not being now found in the forests. Fire conservancy and the benefits which follow from it have been introduced at a comparatively recent date, and they extend over only about one-fifth of the whole area. Reproductive measures may be said to be in progress over the whole of the area which is under protection from fire, or 41,027 acres; the area of plantations included in the above is 21½ acres.

During the year under report, the thinnings extended over 580 acres of sál forest, within which area 2,922 sál and 821 sain trees were felled, and 6,028 trees of inferior

species are still to be disposed of; in addition to these, 2,608 trees, the result of selection fellings, were sold standing to purchasers, and 46 trees were cut by departmental agency. Ten blocks of forest were leased for the removal of dead wood and minor produce, and realized Rs. 10,365, leases for limestone, hides, &c., producing another Rs. 1,781 ; more than 38 miles of new roads and bridle paths were made, and old roads were repaired ; a number of new buildings were erected for the better accommodation of the establishment ; 39,779 acres of forest were successfully protected from fire ; 14 acres of new plantations were made ; climber cutting was effected over 5 square miles of forest ; the forest gardens at Kaonli and in the School compound were kept in order, and the divisional officer superintended the district mulberry nurseries, the roadside and camping-ground planting operations, as well as the construction of a district road. In addition to the above work, the record of reserves was pushed on, and the Working Plans Branch commenced the preparation of a working plan. Nine students have been attached to the division for instruction in practical work. About one-ninth of the revenue was collected by the establishment at the revenue chaukis, the remainder being paid in direct.

The principal improvements required are as follows : *viz.*, 1st, revision of establishment, regarding which proposals will shortly be submitted for the whole Circle; 2nd, revision of the grazing arrangements, regarding which a report has been submitted relating to the Dún and Saháranpur divisions ; 3rd, arrangements to protect the small bamboo forests from being over-thinned (this matter is now in the hands of the Working Plans Branch) ; 4th, revision of the system of collecting revenue on lime-burning ; 5th, arrangements to control the traffic on the Ganges river ; and 6th, the record of reserves must be completed.

Saháranpur.—The areas under the principal kinds of trees are roughly estimated to be as follows :—

	Acres.
i.—Sál and its associates	11,000
ii.—Mixed forests in the Siwálik hills, principally sál, dhaura, bákli, chir ...	133,000
iii.—Khair	4,000
iv.—Inferior forest and blanks	42,380
Total ...	190,380

The treatment of these forests before they came into the hands of the Forest Department was similar to that above described in the case of the Dehra Dún division ; no regular cuttings have been made by the Department, but the unsystematic thinnings, controlled and regulated to such an extent as was found possible, were allowed to continue until last year, when they were stopped. The result of this treatment is that it cannot now be said that there is any area covered with mature trees ; but there is a crop of growing trees, very thin except in the case of "sál and its associates," over the first three of the above-named classes, that is, over an area of about 148,000 acres. It may be said that reproductive measures are in progress over the whole of the area which is under protection from fire (38,091 acres) ; the area of plantations, which is included in the above, is 109 acres.

The forests of the eastern and central ranges are leased annually for the collection of revenue on dry wood, grass and minor produce, with bamboos and dry fallen or standing timber in a few cases ; last year the leases realised Rs. 13,829. No new roads were made, but many of the old roads were repaired ; the Dholkand rest-house was nearly completed and a well was made near it ; two other wells are in course of construction ; 37,806 acres of forest were successfully protected from fire ; 17 acres of new plantations were formed ; and the demarcation of a portion of the outer boundary was renewed. Above four-fifths of the revenue were collected at the chaukis by the establishment.

The principal improvements required in this division are—1st, revision of establishment; 2nd, revision of the grazing arrangements; 3rd, the record of reserves must be completed.

Jaunsár division.—The areas under the principal kinds of trees may be roughly estimated to be as follows:—

	Acres.
i.—Deodar	20,000
ii.—Fir	20,000
iii.—Chir (*P. longifolia*)	20,000
iv.—Oak	12,000
v.—Miscellaneous	7,291
Total ...	79,291

These forests have only lately been worked, and, neglecting the comparatively small amount of timber required to supply the requirements of the neighbouring inhabitants, the only demand is from the station of Chakráta for building materials and fuel; the deodar forests only have been worked for timber, while the oak and fir forests near Deoban have alone been worked for fuel. Fellings have never taken place in the greater part of the forests; but they have suffered from fires, storms and uncontrolled grazing, and there are many blanks and areas on which there is comparatively little young growth. No attempt has yet been made to estimate the area covered by mature and by growing trees, but this will be attempted in the next report. As explained above, the area over which fellings of mature trees have been made has been limited to the deodar forests and to the oak and fir forests near Deoban; the system of selection fellings has always been adopted, and the areas worked over may be stated at about 4,500 acres, over about 2,000 acres of which all mature trees have been cut. Reproductive measures are in progress over the whole of the area (38,314 acres) which is under protection from fire; the area of plantations, which is included in the above, is 1,135½ acres.

The main objects to which the attention of the divisional officer is directed were stated in last year's report. The principal work of the year has been the supply of the public departments at Chakráta with timber and fuel; but 14 miles of new roads and paths were made, and existing roads were repaired where necessary; some additional buildings were made for the accommodation of the establishment; 37,974 acres of forest were successfully protected from fire; 37½ acres of new plantations were made, and numerous blanks in existing plantations were filled up. The box-wood forests were inspected by Mr. Hearle, and a report was submitted to Government, but it is to be regretted that, under the terms of the present Tehri-Garhwál lease, protective measures cannot be adopted for the benefit of these forests; the deodar forests in Tehri-Garhwál were also inspected by Mr. Hearle, and proposals have been made to reserve two additional forests; a preliminary estimate was made for the working of the Dháragádh deodar forests. Somewhat less than one-fifth of the revenue was collected through the subordinate establishment.

The principal improvements called for are—1st, revision of establishment; 2nd, development of the trade in fir and pine timber; 3rd, disposal of refuse wood in the forests remote from Chakráta; 4th, restriction on entry of Gujars' buffaloes into the forests; 5th, improvement in the system of issuing free grants of forest produce to villagers; and 6th, the record of reserves must be completed.

Tons division.—The following are estimated to be the areas under the principal kinds of trees, *viz.*:—

	Acres.
i.—Deodar	18,000
ii.—Chir (*P. longifolia*)	19,000
iii.—Mixed forest of *P. excelsa*, rai, morinda and oaks	12,516
Total ...	49,516

These forests, like those of the Jaunsár division, have only lately been worked, and, neglecting the small amount of timber used locally by the villagers, the only demand is for deodar timber, which has hitherto been exported in the form of railway sleepers. It has not been possible at present to estimate with any degree of accuracy the area that is actually covered with mature and growing trees, but this will be attempted in the next report. The area of deodar forest over which fellings by the selection system have been made amounts to about 10,000 acres, and timber operations have here been brought to a close. Reproductive measures are in progress over the whole of the area (32,686 acres) which is under protection from fire ; the area of plantations, which is included in the above, is 179 acres.

The main lines of the work in the Tons division were explained in last year's report; endeavours to sell trees standing have not been successful. The principal work of the year has been the preparation of 48,524 metre-gauge sleepers at Deota, and the export of 40,037 of them to Delhi; 36,677 large sleepers were carried from the Raiengarh forest to the banks of the Pábar river; 21,781 large and 4,838 small sleepers from these forests were floated, about 20,000 large ones having been stacked in the Dún, and the balance either carried on to Delhi, or remaining to be accounted for by the contractor. 11 miles of new roads were constructed and existing roads were repaired ; some small buildings were erected for the accommodation of the establishment ; 129 acres of new plantations were formed. 75 acres of forest, in which a thicket of young chil covered the young deodars, were thinned out; the ringing of spruce and silver fir at Deota was continued, and 31,597 acres of forest were successfully protected from fire. In addition to the above, a commencement was made to bring the traffic on the river Jumna under control ; a short experimental length of "sledge road" was constructed at Deota ; the box-wood forests were inspected by Mr. Moir and report was submitted to Government ; the Tehri-Garhwál deodar forests were also inspected by Mr. Moir, and proposals to reserve four additional tracts have been submitted. None of the revenue was collected by the subordinate establishment.

The principal improvements called for are—1st, revision of establishment ; 2nd, development of trade in standing deodar trees and in fir and pine timber ; 3rd, disposal of refuse wood ; 4th, restriction on entry of Gujars' buffaloes into the forests ; 5th, improvement in the system of issuing free grants of forest produce to villagers ; and 6th, the record of reserves must be completed.

CHAPTER I.

Area and Boundaries.

Area.

6. The area of reserved and leased forests stood thus at the commencement and at the close of the year :—

1st April, 1882.		1st April, 1883.		Increase in acres.
Acres.	Equivalent in square miles.	Acres.	Equivalent in square miles.	
492,480	769	496,911	776	4,431

The increase is thus accounted for :—The Binksár leased forest of 50 acres has been added to the Tons division ; a nominal increase of 4,551 acres has occurred on remeasurement of some of the forests ; 74 acres have been transferred to the Irrigation Department, and 46 acres have been lost owing to a rectification of the boundary.

Boundaries.

7. *General.*—The revision of the demarcation consequent on the preparation of the "Record of reserves" was proceeded with, and was nearly finished in the Dún, but there is still a good deal of this work to be done in Saháranpur, and it is not yet

complete in the hill divisions, though considerable progress has been made. New pillars were erected, old ones were repaired and numbered, and the clearing of boundary lines and construction of paths and ditches was continued. The leased forests in Jaunsár were temporarily demarcated. The total expenditure was as follows :—

	Rs.
Construction, repairs and numbering of pillars... ...	1,511
Clearing of boundary lines	1,509
Boundary paths	353
Notice boards	161
Total ...	3,534

An additional sum of Rs. 43 was erroneously charged to A.VIII (*a.*) 540 miles of boundary are certified to be in good order.

Dehra Dún.—The work of improving the boundary lines and increasing the number of pillars has been completed, except where the position of the boundary is disputed. Where new pillars were required round Málkot and Tháno, they were made of pucka boulder masonry, 2′ square and 3½′ above ground; at the top of each pillar was inserted a slate slab bearing its number engraved on it; the pillars cost Rs. 2-11-6 each. In these two forests the points where the block boundary meets the outer boundary have been indicated by a small pucka pillar, the initial letters of the block names being engraved on slates let into opposite sides of it. The following is an abstract of the expenditure, including the clearance of boundary lines and the construction of bridle paths along the boundary :—

	Rs.
Construction, repair and numbering of pillars	884
Clearing 46 miles of boundary lines	598
Constructing 13 miles of boundary bridle paths	353
Total ...	1,835

173 miles of the boundary are certified to be in good order.

Saháranpur.—In the central and eastern ranges 12 miles of outer boundary lines were cleared and 4 miles of boundary ditch were dug. Round the Patri forest a boundary ditch 4′ wide and 3′ deep was dug where necessary; 4½ miles of boundary lines were cleared in the western range, and the boundary of the Maisapur block was also cleared; 32 masonry and 81 temporary pillars were erected along the Khára-Hardwár road to define the block limits; 25 iron notice boards were erected.

The expenditure was as follows :—

	Rs.
Construction and numbering of pillars	312
Clearing 25 miles of boundary lines	911
Notice boards	161
Total ...	1,384

55 miles of the boundary are certified to be in good order.

Jaunsár.—The leased forests in Tehri-Garhwál have been temporarily demarcated. Much damage was done to existing boundary pillars by the heavy fall of snow which occurred in January last; repairs have been executed in places, but they are not completed It is reported that with this exception 234 miles of boundary are in good order. The total expenditure was Rs. 296.

Tons.—Some errors in the demarcation of the Deogár forests were discovered, and they will be corrected. Additional pillars were erected round Dátmir, Surás, Bámsu, Kotigádh, and the Saura box-wood forest; additions were also made to the demarcation of the blocks and compartments in Deota The total actual expenditure was only Rs. 19, but the whole of the accounts were not settled at the close of the year. About 77 miles of boundary are certified to be in good order.

8. *Disputed boundaries.*—In consequence of the revision of the demarcation in the Dún several disputes arose, most of which are now settled. The dispute between the Rájas of Tehri-Garhwál and Keuntal, referred to in last year's report, has been settled in favor of Keuntal, and the timber on the land in dispute is thus lost to Government.

Dehra Dún.—There have been 7 cases of boundary dispute, raised almost entirely in consequence of the revision of demarcation. In the case of the Markham Grant and Baniawála, the Superintendent of the Dún has decided against the Department, and the boundary will be revised; but the present boundaries are ordered to be maintained in the cases of Ránipokri, Raynorpur and Karkhari, and the disputes at Rámpur Mandi and Barkot were pending at the close of the year.

Tons.—The dispute between the Rájas of Tehri-Garhwál and Keuntal has been decided in favor of the latter chief, and the timber is thus lost to Government. The Rána of Tirhoch complains of the position of a boundary pillar, and the needful action will be taken.

CHAPTER II.

Surveys, Working Plans, and Plans of Operations.

Surveys.

9. In the Dehra Dún and Sahâranpur divisions some native surveyors were employed in surveying the pillars lately put up; in Jaunsár a new large-scale survey was made of the Mohna block, and in the Tons division the Raiengarh and Dádi forests were surveyed.

Working Plans and Valuation Surveys.

10. There are no regular working plans for the forests of this Circle, and the forests are managed in accordance with the suggestions contained in Mr. Brandis' printed reports. The Working Plans Branch, under Mr. Fernandez, was employed from the 1st November to the end of the year in the preparation of a plan for the Dún forests. Mr. Hearle submitted a report on the box-wood forests of the Jaunsár division, showing that he has 4,340 trees above 18″ in girth and 8,605 trees between 6″ and 18″ in girth; Mr. Moir also submitted a report on the box-wood forests of the Tons division.

Measurement of growing trees.

11. The measurements of growing trees were continued in the Dún and Sahâranpur; the Mánduwála plot, near Lachiwála, is considered unsuitable, and the Superintendent of Working Plans has been requested to select a more favorable site for the experiments.

Reducing factors.

12. 7 spruce and 10 silver fir trees were measured by Mr. Hearle, and the details are given in appendix (B); the results, taken with those obtained in 1880, tend to show that the factor for spruce is 0·48, and that for silver fir is 0·55; the whole of the material is utilized as firewood. Mr. Moir has measured 36 deodar trees, and calculated both the reducing factor and also the proportion between the total cubic content of the tree and that of the good sleepers which were extracted from it; the factors thus obtained are 0·27 and 0·39. The latter figures agree exactly with the result obtained in 1881-82, but the reducing factor for that year cannot now be given. The details of Mr. Moir's measurements are given in appendix (B.) The average cubic contents of the deodar trees now being felled is 268 cubic feet; but it has not yet been possible to utilize any of the large quantity (about 60%) of waste wood which is left in the forests after the annual felling operations.

Counting of concentric rings.

13. Mr. Hearle has counted the rings on sections of the radius of 8 spruce, 3 silver fir and 2 box-wood stumps; and Messrs. Moir and Hobart-Hampden counted the rings on 42 deodar trees. The results are given in appendix (C.) Mr Moir suggests that the deodar tree sometimes forms two concentric rings in one year, and this question will be further investigated.

Annual plans of operations.

14. Plans of operations were as usual framed for each division; in appendix (D.) will be found a memorandum showing to what extent the proposed operations were carried out.

Record of reserves.

15. The preparation of these records is a long and laborious task. It was pushed on as far as possible during the past year, but it is not yet completed; it is hoped that most of the work will be finished during 1883-84.

CHAPTER III.

Protection and Improvement.

Establishment.

16. *Sanctioned permanent and temporary establishments.*—The following statement shows the amount sanctioned for permanent establishment, and the actual expenditure on temporary establishment during the year :—

Divisions.	Subordinate staff.		Office establishment.	
	Permanent.	Temporary.	Permanent.	Temporary.
	Rs	Rs.	Rs.	Rs.
Direction	1,824	177	2,530	1,576
Dehra Dún	3,216	1,454	1,417	120
Saháranpur	1,872	4,591	1,070	...
Jaunsár	2,352	1,314	1,045	...
Tons	2,184	2,326	720	...
Total ...	11,448	9,862	6,782	1,696

17. *Appointment of rangers.*—As none of the six men now in training at the Forest School have yet qualified for the post of ranger, no men of this class have yet been appointed ; but the remarks made in last year's report regarding the desirability of obtaining a good staff of qualified rangers have equal force this year.

18. *Native non-commissioned officers.*—No men of this class have yet been appointed.

19. *Services of the subordinate staff—Foresters and Forest guards.*—The remarks made last year regarding the general inefficiency of the establishment again apply, and proposals for its revision will shortly be submitted. In the Dún division two of the old foresters have been discharged on medical certificate, and a third has been sentenced to three years' imprisonment for dishonesty ; a forester in the Tons division was also dismissed for misconduct. The services of six forest guards were dispensed with in consequence of their misbehaviour.

20. *Students of the Forest School employed in the forests.*—Fourteen students at the Forest School were employed during the working season of 1882-83 in the forests of this Circle.

21. *Formation of beats and ranges, and control thereof.*—In order to utilize the services of the establishment to the best advantage, and to permit each man to have a definite and responsible charge, the arrangements previously made with regard to the formation of beats and ranges will now be somewhat modified, and proposals to this effect will be submitted to Government with the application for an improved establishment.

22. *Office establishment.*—The office hands have worked well, but some improvement is desirable in their position and prospects. A proposal to this effect will shortly be submitted.

23. *Uniform and badges.*—Proposals on this subject will be submitted to Government before the beginning of next working season.

24. *Securities.*—The existing orders regarding the taking of security from subordinates have not been fully carried out, and a report on the subject will be submitted for the orders of Government.

General protection and forest law.

25. *Prosecutions.*—The result of prosecutions before Magistrates for breaches of forest rules was as follows :—

Year.	Convictions.		Acquittals.	
	Number of		Number of	
	Cases.	Persons.	Cases.	Persons.
1881-82	50	94	15	49
1882-83	12	19	4	21

One case was pending at the commencement and three cases were pending at the close of the year. The numbers for the year under report are smaller than those for the previous year, because cases tried before Magistrates only are now included in the returns. Of the 18 "new cases of the year," one was for injury by fire, ten were for unauthorized felling or appropriation of produce, two were for grazing in closed forests, and five are classed as "other offences." Of these latter, two were for hunting and fishing in contravention of the rules under section 25 (*i*) of the Act, one was for illicit cultivation within a reserved forest, one was for an alleged assault on a forest guard (case dismissed), and the remaining case was one of theft by a public servant (forester Ghulám Ali, who was sentenced to three years' imprisonment). Much difficulty is experienced by Mr. Moir in disposing of cases in Bashéhr owing to the long distance that he is from the authorities of the State, and a representation has been made to the Government of the Panjáb with a view to his being given powers, similar to those exercised by the officer in charge of the Sutlej division of the Panjáb, to try offences committed in that State.

26. *Cases compounded under section 67 of the Act.*—Forty-seven cases involving 78 persons were disposed of by the divisional officers under section 67 of the Act, the amount of compensation received being Rs. 976. In one of these cases the officer in charge of the Saháranpur division received Rs. 700 from a contractor who, having purchased the right to remove dead wood, was found to be exporting green timber; all the remainder of the cases were petty ones.

27. *Relations between the people in the villages on the borders of the forests and the forest officials.*—On the whole, the relations of the forest officials with the neighbouring villages may be said to be satisfactory. In Jaunsár Báwar improved arrangements will (at the suggestion of Mr. H. G. Ross, C.S., now on special duty in that pargana), be made for the supply of forest produce to the people, and this will remove an existing cause of dissatisfaction. The appointment of an influential native of Bashéhr to the charge (under the Tons divisional officer) of the leased forests in that State, will, it is hoped, have a good effect.

28. *Shikáris and wild animals.*—Native shikáris have not given much trouble, but the heavy fall of snow which occurred in the hills during the month of January enabled the villagers to kill a large number of animals, chiefly outside, but in some cases within, the limits of the forests; offences of this kind committed within the forests can be dealt with in British territory under the rules framed under section 25 (*i*) of the Forest Act, but it is to be regretted that nothing can be done to protect the game in the Native States. Man-eating tigers have again been troublesome in a part of the hills, and a reward of Rs. 500 is offered for the killing of any tiger which can be proved to have killed a human being. A herd of elephants has been about the Kánsrau pass for some time, and a man was killed by one of them. Although the closing for seven months of the fire-protected areas in the Dún and Saháranpur affords shelter for the deer, this does not, it is believed, result in damage to the crops; for, as a rule, the protected areas are remote from cultivation. Should it be found that the deer increase to any inconvenient extent, the rules which prohibit the killing of hinds at certain seasons can be temporarily suspended, but this is not necessary at present; on the contrary, the only complaints received have been from sportsmen,

who say that they cannot find sufficient deer in the private lands and open forests to make it worth while for them to go out. The number of sportsmen has largely increased of late, and if it were not that a refuge is provided for the deer during a part of the year, they would soon be almost exterminated, and there would be no sport left. So far, however, as the present regulations relate to the hunting and shooting of game in the fire-protected forests, they were not framed for the protection of the game, but to prevent risk from fire; and the Conservator has now been authorised to permit shooting in these forests during the time that they are ordered to be closed, if, owing to a heavy fall of rain, no danger from fire is to be anticipated, or in order to admit of the destruction of a particular animal, such as a tiger or a wild elephant, which may be found troublesome or dangerous. It has been claimed on behalf of some of the district officials that they should not be bound by the rules; but the Conservator has not seen his way to admit this claim, as, if he had done so, he would have found it quite impossible to maintain the rules at all; in his opinion the rules are necessary for the protection of the forests, and are also favorable to sport, by enabling a head of game to be permanently kept up for the benefit of sportsmen.

Forest fires.

29. *General account of protective works.*—The area in which protection from fire was attempted, that in which it failed or was successful, and the total cost to the end of June, 1883, are given below; the figures for the previous year are also given:—

Divisions.		Area attempted to to be protected.	Percentage of entire area.	Failures.	Successfully protected.	Percentage of failures to area attempted.	Cost.
		Acres.		Acres.	Acres.		Rs.
Dehra Dún ...	1881-82 ...	38,942	22	3,856	35,086	11·0	20,810
	1882-83 ...	41,027	23	1,248	39,779	3·0	24,351
Saháranpur ...	1881-82 ...	36,166	19	40	36,126	0·1	6,022
	1882-83 ...	38,091	20	285	37,806	0·8	8,870
Jaunsár ...	1881-82 ...	38,314	50	15	38,299	0·04	2,992
	1882-83 ...	38,314	48	340	37,974	0·9	3,461
Tons ...	1881-82 ...	28,432	60	1,750	26,682	7·0	3,327
	1882-83 ...	32,686	66	1,689	31,597	3·0	4,138
Total ...	1881-82 ...	141,854	29	5,661	136,193	4	33,161
	1882-83 ...	150,118	30	2,962	147,156	2	40,820

From the above figures it will be seen that the area brought under protection has been increased by 8,264 acres, and that the cost of the season's work was Rs. 7,659. It will also be observed that the protection of 30 per cent. of the total area of the forests is now attempted and that only two per cent. of this area was burnt during the year. The average cost of the season's work per acre successfully protected was as follows:—

	1881-82.	1882-83.
	Annas.	Annas.
Dehra Dún	2·0	1·4
Saharánpur	0·8	1·2
Jaunsár	0·2	0·2
Tons	0·4	0·4
The Circle ...	0·9	0·8

The rate for the Circle was therefore reduced somewhat; a considerable improvement was made in the Dún, but the rate for Saháranpur was increased. The rate in the Tons division is double that in Jaunsár.

DEHRA DÚN.—The arrangements made by Mr. Fisher for this division were on an improved system, and they worked well; he had the advantage of being able to employ a number of the students of the Forest School to supervise the work. There were four fires, *viz.*—

(i.) *Chandrabani, 1,062 acres.*—This fire was the result of great carelessness on the part of the forester in charge, who was punished by degradation.

(*ii.*) *Bahera*, 122 *acres*.—This fire crossed over from the Saháranpur division, and it was extinguished by the establishment.

(*iii.*) *Rámgurh*, 58 *acres*.—No actual proof of the origin of the fire has been obtained, but two *machâns* were found in a *rau* close by, and it is believed to have been ignited by *shikâris*.

(iv.) *Thano*, 6 *acres*.—A contractor was accused of having ignited the fire, but no proof against him could be obtained; an arrangement has now been made with the inhabitants of Thâno which, it is hoped, will result in the successful protection of this forest.

Mr. Fisher gives a very useful map illustrating the results of fire conservancy; such maps will be obtained from other divisions to accompany the next report.

SAHÁRANPUR.—Fires occurred in four forests of this division, the most important being that in the Betban block, where an area of 200 acres was burnt over; it is believed to have been lighted by travellers passing along the road from Berihára to Kánsrau. The total area burnt was 285 acres.

JAUNSÁR.—There were six fires in this division, *viz.*—

(*i.*) *Shâlna*, 200 *acres*.—The fire, which burnt over nearly one-half of the forest, is believed to have been lighted by the villagers of Shâlna.

(*ii.*) *Bodyar*, 19 *acres*.—This fire occurred through the carelessness of a forest-guard, who has been dismissed.

(*iii.*) *Maurauwa*, 55 *acres*.—The fire is believed to have been caused by sparks from a burning tree standing outside the protected portion.

(*iv.*) *Asmâri*, 5 *acres*.—The fire was due to the carelessness of a shepherd, who was fined.

(*v.*) *Forest garden*, 11 *acres*.—A charcoal-burner working outside the garden accidentally lighted a fire which crossed the line and entered within the fenced portion; it was extinguished before it reached the seed beds.

(*vi.*) *Kâlsi*, 50 *acres*.—The fire entered this forest from private lands.

The damage done in Bodyar, Maurauwa and Asmâri was very slight.

TONS.—There were five fires, which resulted in the burning of 1,089 acres. All these fires were due to the carelessness of the establishment when engaged in burning the fire lines.

Grazing and fencing.

30. *System of grazing and collection of grazing dues.*—A proposal to revise the rules for the collection of grazing dues in the Dún and Saháranpur divisions was submitted to the Commissioner on the 18th February, 1883, and the result is awaited, no orders having yet been passed. Loud complaints continue to be made regarding the ingress of Gujars' buffaloes into the Jaunsár and Tons divisions; the villagers assert that the buffaloes destroy their crops and introduce disease among their cattle, while they are followed by tigers, which kill men and strike terror into the whole country. A special report has been submitted to Government regarding this question, so far as it affects those portions of Bashâhr and Tehiri-Garhwál which are included in this Circle, and Mr. Ross is, it is believed, taking up the question as regards Jaunsár-Bówar.

31. *Exclusion of cattle, sheep and goats.*—The arrangements reported last year are maintained; but cattle are not now admitted into the closed khair and sissu forests of the Dún. The Banárpáni and Chakoria blocks of the Lambatách forest were opened to sheep and goats for three weeks during the months of October and November; the undergrowth in these blocks is extremely dense, the seed-bearing trees being very much scattered, and it was hoped that the flocks would clear the ground of the herbage, which is prejudicial to the growth of seedlings; the experiment was not however attended with any noticeably good result, perhaps because it was not tried for a sufficiently long time.

Natural reproduction.

32. *General.*—The conditions as regards natural reproduction vary very much in different localities. Speaking generally, it may be said that in the sál forests the growth is so vigorous that, if fires are kept out, there is no doubt of a full crop being produced without artificial means, except in the case of blanks of more than about 200 yards wide, to the centre of which seed will not as a rule be carried. In the hills the condition of the natural reproduction is less satisfactory. Here the young seedlings have both fires and grazing to contend with; but where they are protected from these enemies, and on slopes of favorable elevation and aspect, the results are fairly good.

The Conservator is led to believe that, in order to ensure a good crop of natural seedlings in a hill forest, the area (which, it is presumed, has hitherto been burnt and grazed over) should not be closed or protected from fire until there is a promise of a good seed year. If the forest be closed when a plentiful crop of good seed has been formed, a large proportion of the seed will fall upon the bare mineral soil, and the result may be expected to be a thick carpet of seedlings; but if it be closed without reference to the expected crop of seed, it is probable that before the seed falls a thick matting of decayed grass, leaves, twigs and other substances will have formed on the ground, and that this will effectually prevent the growth of seedlings. When such a matting has once been allowed to form, the regeneration of the forest by natural means becomes exceedingly difficult, if not impossible, and to ensure a crop, the matting must be removed by some means. To scrape it off in places has been tried, but without much success; when the ground has once been scraped it is better to go a step further and sow seed. The only other plan seems to be to admit cattle, whose feet may loosen the matting, and thus either expose the soil directly, or enable the covering of refuse to be washed down by the rain; but if this does not succeed, the forest must probably be stocked by artificial means, though in rare cases it may be permissible to burn off the matting in places. These circumstances, together with the difficulty which is so frequently experienced in providing grazing grounds for the inhabitants, and the uneven condition of the crop, which prevents the adoption of the same measures over any large continuous extent of forest, render regeneration by natural means an exceedingly difficult and delicate operation, requiring a large amount of professional skill. During his recent tour in the hills the Conservator observed a portion of forest where natural deodar seedlings were flourishing in the most satisfactory manner among seedlings of blue pine which were some three or four feet high; the remarkable point is that, although the forest in question is open to grazing, and the surrounding area is in fact heavily grazed over, the people in the neighbourhood being in considerable difficulties as regards pasture, not a single blue pine or deodar in this place appears to have been eaten. The forester declared that the sheep and goats would not enter among the young blue pines, as the long needles got into their eyes; but, whatever the truth of this statement may be, the fact remains that the young deodar trees are not eaten, and if this be found, after observation, to be a general rule, the value of the blue pine as a nurse for deodar will be very much enhanced. The blue pine grows readily almost everywhere at suitable elevations, and it is of a much more rapid growth than deodar.

Dehra Dún.—In this division the greater part of the forests is stocked with sál, which grows with great vigour, and, as a rule, the effect of simple fire conservancy is sufficient to enable a crop of seedlings or coppice shoots to come up and cover the ground. Where fires have been kept out, the results have proved most satisfactory, and it is hoped that the protected area can be considerably increased, so as to embrace the whole of the more valuable forests; within the protected area it will, of course, be desirable to plant up all blanks which will not be filled up naturally within a reasonable time. But there will remain a considerable area which does not at present bear a very valuable crop, and which must be left open to grazing and to the destructive fires which sweep through the valley during the hot season; here it cannot be expected that the forests will re-stock themselves naturally.

Saháranpur.—In Saháranpur the conditions differ considerably from those in the Dún; the greater part of the forests consists of the broken Siwálik range, which, generally speaking, bears a scanty crop of trees of various kinds, most of which have not much present value. On these dry, exposed and hot slopes, it cannot be expected that natural reproduction will be very vigorous, but fire conservancy has made a vast improvement, and it will, no doubt, in the course of time, enable the greater part of the hills to clothe themselves with trees. Portions of the Rátmau basin have now been protected for two years, and already the hard stony *rau* beds are becoming covered with a crop of grass, among which numerous seedlings are to be found, and the water-courses are thus being gradually narrowed into small channels. On the level ground near the base of the hills there is a considerable area of sál forest, most of which has been protected from fire for some years, and here the condition of the natural growth of seedlings and coppice shoots is very satisfactory, though it is not so vigorous as in the Dún. There is little or no natural reproduction in Patri, where indeed there are but few trees, and these are of inferior species.

Jaunsár.—Mr. Hearle writes:—"The progress of natural reproduction in the Jaunsár forests varies "greatly from one block to the next, and even in different parts of the same block. As a rule, it may "be regarded as satisfactory within the protected areas at the lower elevations, although in the same

"forests, as for example Bodyar and Koti (Báwar), the thick grass has prevented the seed from germinat-
"ing. Above the 8,000 feet level natural reproduction is very slow, especially when the aspect is a cold
"one and the soil very hygroscopic, and it is an open question whether artificial reproduction will not be
"needed in the higher portions of Hajáwa, Mohna, and other forests. In its natural zone the blue pine
"is covering many bare slopes which have been fire-protected for some years, and under its shelter
"numerous deodar seedlings are springing up."

Tons.—Regarding the principal forests in the Tofís division Mr. Moir writes as follows :—

Deota.

"In the Partil and Temple blocks of the Deota forest natural reproduction, since the fellings took
"place, is on the whole satisfactory, except in the open *tuches* and damp ravines. In the Dopta and
"Katatách blocks and throughout the remainder of the forest advance growth is very satisfactory, but
"the fellings in the two former blocks having taken place principally during 1881 and 1882, sufficient
"time has not yet elapsed to allow of the springing up of many new seedlings ; however, a good many
"plants resulting from the abundant seeding of 1881 are to be met with in open places, some of which
"may eventually establish themselves."

Lambutách.

"In the Garásna, Lohásu, Chákora and Thanwár blocks of this forest a good deal of natural reproduc-
"tion has taken place since fellings were made ; but in the damp ravines of Banár Pání and on the dry
"grassy slopes of Ghoria and Dámta no reproduction whatever is apparent. In the former blocks the
"deodar seedlings are in great danger of being choked by chil (*Pinus excelsa*) which are of the same
"age, but the growth of which is twice as fast as that of deodar."

Mirách.

"As regards the state of natural reproduction in the Mirách forest, with the exception of the lower
"portions of the Pushrár, Burách and Mirách blocks, few seedlings have sprung up since the fellings
"were made, and no addition to the remarks contained in the appendix to Mr. Brandis' report of 1st
"November, 1881, seem to be called for. There are, however, a considerable number of advance growth
"seedlings which existed before the fellings took place, and these will probably suffice in many places
"to re-stock the forest."

Production of seed.—There was no deodar seed, but the chil (*Pinus excelsa*), the ban oak and *Quercus annulata* seeded abundantly. The last good year for deodar seed was 1881. There was a plentiful supply of sál seed in the Dún and Saháranpur during the year under report.

Artificial reproduction.

33. *General.*—In order to secure the regeneration of the forests they must be protected from fire and, where necessary, from grazing, so that they may be allowed to reproduce and completely stock themselves by natural means ; it is of course quite useless to attempt any artificial work in areas which cannot be so protected. When fellings are to be made, they must be skilfully conducted so as to promote the natural growth, which is principally relied on ; it is only when natural reproduction is impossible, or is likely to be long delayed, that recourse should be had to artificial work, which is so much more expensive. In the Dún and Saháranpur planting and sowing are still in the experimental stage, and no attempt will be made to fill up the fire-protected area by artificial means until more experience has been gained. In the hills matters are further advanced, and it will now be possible to undertake the stocking of more extensive areas than have hitherto been attempted. The area covered by plantations was—

On 1st April, 1882.	On 1st April, 1883.	+ or —
Acres.	Acres.	Acres.
1,361	1,445	+84

The classification of these plantations according to species is as follows, *viz.* :—

	Acres.
Sál	21
Sál and sain	14
Khair and sissoo	87½
Bamboos, mohwa and khair	8
Deodar	462
Deodar, firs and pines	777½
Oak	66
Deodar and oak	9
Total ...	1,445

The area actually added during the year was—

Dehra Dún	15½
Sahárunpur	17
Jaunsár ... ... — ...	37½
Tons	129
Total ...	199

But 25 acres were struck off as failures, and the Landaur cantonment plantation of 90 acres has been omitted, so that the net increase is only 84 acres. The Tons division shows a large proportion of the work done.

The expenditure during the year was Rs. 3,407, but as Rs. 65 have been struck out on account of failures, and Rs. 3,529 on account of the Landaur cantonment plantation, the final figures stand thus:—

To end of 1881-82.	To end of 1882-83.
Rs.	Rs.
20,414	20,227

The expenditure during the year under A.VIII. (*d*) appears in the accounts as Rs. 4,035, Rs. 849 having been wrongly charged to this heading instead of to A.VIII. (*f*), and Rs. 221 having been wrongly charged to A.VIII. (*f*) and now included in the cost of plantations as given above. In addition to the work mentioned above, Mr. Fisher accomplished a good deal in the way of roadside planting, and in planting up encamping-grounds, the funds being found by the district authorities. The older plantations are, as a rule, in fair order. A classification of all existing plantations will now be effected, and a more detailed report on the old plantations as distinguished from the new ones will be made next year.

DEHRA DÚN.—As previously stated, the effect of fire-protection will undoubtedly be that the sál forests will, as a rule, restock themselves; but it is desirable that all blanks within the fire-protected area which will not fill up naturally within a reasonable time should be stocked artificially, and this is especially necessary where the blanks occur along the edge of the forest; these should be stocked at once. Before commencing operations on anything like an extensive scale it is however necessary to carry on experiments in order to determine the correct method of procedure, and the small plantations hitherto made have been constructed with this object. In addition to plantations of sál and sain, experimental plantations of tún, sissoo, khair and karar will be made, these trees having considerable value and being suited to various localities; a plantation of bamboos will also be tried in the Johra block near the Ganges. In addition to the experimental plantations to be made in various places with the ultimate view of stocking the fire-protected forests, a plantation will be established at Lachiwála, which will both answer the same purpose as the others, and will also be exceedingly useful for instructional purposes; the Rámgarh plantation was at first intended to answer this latter end, but the soil is not found to be sufficiently good. A remeasurement of the sál plantation at Phandawála shows the area to be 1½ acres more than was at first supposed; Rs. 120 were spent upon it during the year.

The small sissoo and tún plantations at the same place have been struck off as failures. Fourteen acres of sál and sain plantations were made at Rámgarh at a cost of Rs. 472; and Rs. 19 were spent at Lachiwála. The Landaur plantation of 90 acres, which had cost Rs. 3,392 up to the end of 1881-82, has been struck off, as it does not in reality belong to this Circle; it has been made by the Cantonment authorities, and all that the Forest Department has to do with it is to offer professional advice to the Commanding Officer. The actual expenditure in the division during the year was Rs 611; but an additional sum of Rs. 50 spent on the Kaonli garden was erroneously charged to A.VIII. (*d*) A more detailed account of the work will be found in appendix (E). In addition to the above work, the sum of Rs. 189 was expended by Mr. Fisher from district funds in planting up and improving the camping grounds which are in his charge; Mr. Fisher also planted, fenced and protected from frost 763 roadside plants at a cost of Rs. 322, the funds being found by the Agricultural Department. The present roadside nurseries will shortly be abandoned, and trees will be given from the Kaonli garden; the loppings from roadside trees realized Rs. 23.

SAHÁRANPUR.—The position in Sahâranpur as regards artificial reproduction is much the same as in the Dún. It is necessary to experiment with a view to the eventual filling up of those blanks within the fire-protected area which will not be stocked naturally within a reasonable time, and with this object experimental plantations have been made; 17 acres were added during the year, but 20 acres were struck off as a failure. It is not likely that Patri will ever become naturally stocked with trees of a valuable kind, and although the extension of the Oudh and Rohilkhand Railway to Sahâranpur will pass through it, it is by no means certain that to stock it artificially would prove remunerative; the future of this forest will receive special consideration. The total expenditure was Rs. 486, but an additional sum of Rs. 3 was erroneously charged to A.VIII. (*d*). A detailed account of the work will be found in appendix (E). Rs. 221 were expended under A.VIII. (*f*.) in clearing out the channel which leads water to the Patri plantation; this sum should have been charged against the plantation.

JAUNSÁR.—From what has been said above under the head of "Natural reproduction," it will be seen that there is much planting and sowing to be done in the hill divisions; here the work is emerging from the experimental stage, and it will now be possible to undertake the stocking of considerable areas. Rs. 490 were spent on existing plantations, Rs. 619 on 37 acres of extensions in the Cantonment blocks, and Rs. 14 on a seed bed in Kanjátra; total Rs. 1,123. An additional sum of Rs. 796, spent on coppicing and on the Chakráta garden, was wrongly charged to A.VIII. (*d*). The details of the work will be found in appendix (E.)

TONS.—The remarks made regarding Jaunsár apply, generally speaking, to the Tons. More planting work was accomplished in this than in any other division, 129 acres having been added at a cost of Rs. 966; the details of the work done will be found in appendix (E). A considerable quantity of deodar seed which ripened in November, 1881, was sown in November, 1882, as an experiment, both in nurseries and in boxes, but none of it has germinated.

Cutting of climbers.

34. In the Dún the climbers were cut over about five square miles of forest at a cost of Rs. 206. It is intended to cut all climbers, in compartments where thinnings are proposed, two years before the cuttings are made, so that the stems of the climbers may decay and not interfere with the fall of the trees. In Sahâranpur Rs. 100 were spent on climber-cutting in the Ganjarbun and Rasulpur blocks.

Experiments and exotic trees.

35. *Forest gardens.*—The gardens at Kaonli, in the Forest School compound and at Chakráta, were maintained. The Kaonli garden has been almost entirely used for mulberry cuttings, but it will be used also to supply roadside plants as soon as there is room for them; and with this object in view a number of mango, tún, and jack seeds have been sown; the seed of a number of indigenous and exotic trees was sown, and the results are recorded in appendix (E). Rs. 269 were supplied by the Agricultural Department on account of the mulberries, and Rs. 50 were spent from the funds of the Forest Department. The garden in the School compound, which is used chiefly for instructional purposes, cost Rs. 730, and that at Chakráta cost Rs. 689. In the latter garden a number of fruit trees obtained from Ránikhet and Mussoorie were planted and are doing well, and the seeds of several exotic species were sown; a number of seedlings were supplied from it to the Commandant and the Chaplain at Landaur, and also to the local Executive Engineer. For details of the work in the School compound and at Chakráta see appendix (E). Mr. Moir sowed some seed of *Chamærops martiana* in November, but it has not yet germinated; he also

sowed seed of *Pinus australis*, all the plants of which died in the winter. The total expenditure from departmental funds was Rs. 1,469.

36. *Coppicing.*—With regard to the area of sál coppice mentioned in para. 76 of last year's report, it is now said that 25 stumps were measured in May, 1883, and that they had produced 35 shoots with an average height of 8½′ and an average girth of 3¾″; 14 shoots were over 10′ high, the tallest having attained a height of 17′; these shoots were two years old. In Jaunsár the plot coppiced in the Kurwa forest in December, 1881, and mentioned in para. 97 of last report, is doing well, the ayár shoots being from 3′ to 6′ high, and the bán and rhododendron from 1′ to 3′ high; another plot of three acres was coppiced in December, 1882, and the whole of the closed portion of this forest has been divided into 22 compartments, one of which will be coppiced annually. In Mohna two plots of karshu, measuring together 2½ acres, were coppiced in the spring of 1882, and half an acre of moru near the Deothát nursery was coppiced at the same time; the results of these experiments will be reported hereafter.

37. *Thinning of Pinus excelsa.*—The experiment described in para. 123 of last report was continued, a gang of men having been specially trained by Mr. Moir to carry out this operation in the Lambatách forest, and about 75 acres were gone over at a cost of Rs. 109. The chil, which have now attained a considerable size, were cut down wherever young deodars were found among them, but the result has been that the heavy fall of snow which occurred in January last, has done a good deal of damage to the exposed deodar. The impression at first conveyed by an inspection of this forest is that the deodar must be completely choked by the chil; but a careful examination lately made by the Conservator has led him to believe that in most cases the deodars under the chil are making satisfactory growth, and seeing that they are exposed to some risk when the protection is entirely removed, he has thought it desirable to order that the chil shall be removed only in places where an examination of the deodar shows that it is undergoing suppression; and even then the chil will be removed gradually; the result of this modification of the former experiment will be reported in due course. Blue pine were thinned out over an area of 22 acres at Konain in the Jaunsár division.

38. *Ringing fir trees at Deota.*—The experiment mentioned in para. 124 of last report was continued at Deota; but a slight modification was introduced, in that very few fir *poles* were ringed, except where they grew directly over deodar seedlings; 479 trees were ringed at a cost of Rs. 35. The rate is higher than formerly, and this is due to the fact that the work was done at the wrong season of the year; it should always be done in July and August, when the bark can readily be detached. An inspection of this work has led the Conservator to believe that it should not be fully carried out in one season in any locality; there is much danger of a crop of brambles and other shrubs springing up where too much light is admitted, and when this evil result has occurred, it becomes very difficult to deal with the forest. The ground should be gone over two or three times at intervals of several years, and the fir trees should be removed very gradually; this is a most delicate operation requiring a large amount of professional skill, and the correct method of procedure has not yet been determined.

39. *Treatment of bamboos.*—As previously reported, the experiment has been tried of establishing a rotation for bamboos in Saháranpur; the first set of five blocks will, next cold weather, have passed through two complete growing seasons in a state of rest, and their condition will be specially reported on. A similar system will be tried in the Dún, where Mr. Fisher reports that the supply is falling off, doubtless owing to over-cutting. In order to test the effect of various degrees of thinning on clumps of bamboos, the experiment alluded to in para. 74 of last year's report was undertaken; it is too early to give results yet, but there seems no doubt that a larger number of clumps should be operated on, and this will be ordered.

Communications and buildings.

40. *Expenditure.*—The expenditure was as follows as compared with that of the previous year :—

Year.	Roads and bridges.	Buildings.	Other works.	Total.
	Rs	Rs.	Rs.	Rs.
1881-82	7,663	16,439	524	24,626
1882-83	8,871	18,192	786	27,849

41. *Roads and bridges.*—The repair of existing roads cost Rs. 5,642, and the construction of about 69 miles of new roads and paths of all classes cost Rs. 3,229. The following statement shows the length of roads and paths constructed and maintained by the Department ; the figures were only estimated last year, but they are now given more correctly:—

Description of roads.	Length in miles.				
	Dún.	Sahéranpur	Jaunsár.	Tons.	Total.
In the Dún and Sahéranpur.					
Cart roads 15 feet wide	67	10	...	...	77
" 10 "	15	28½	...	...	43½
Bridle paths 6 feet wide	79	1	...	...	80
Foot-paths	...	1½	...	...	1½
In the hills.					
Main roads 4 feet wide	...	...	84	41	125
Roads 3 to 4 feet wide	...	...	33	74	107
Inspection paths	...	...	67	140	207
Total miles ...	161	40½	184	255	640½

Those roads only are kept in thorough repair which are actually required for use.

DIRECTION.—Rs. 73 were expended on roads and paths in the compound ; this sum should have been charged to A.VII. (*c*)—

DEHRA DÚN.—The expenditure was as follows :—

				Rs.	Rs.
Repair of existing roads, including widening and improving them ...					2,122
				Rs.	
2 miles of new forest roads 15 feet wide	...	...	...	158	
36½ miles of new bridle-paths 6 feet wide	...	...	...	294	
5 miles Rikhikesh-Raiwála district road	...	...	...	450	= 902
		Total	...	...	3,024

The Rikhikesh-Raiwála road was completed by the aid of funds provided by the Superintendent of the Dún.

SAHÉRANPUR.—Repairs of existing forest roads cost Rs. 157, and, in addition to this sum, Rs. 349 were expended, on the repair of a part of the Hardwár-Khára road, Rs. 500 having been added for this purpose by the Collector.

JAUNSÁR.—The expenditure was as follows :—

				Rs.	Rs.
Repairs of existing roads and paths	...	...	...		1,310
About 3 miles of new main roads ...	...	...	...	737	
About 1½ miles of new carrying roads	...	...	...	474	
About 10 miles of new inspection paths	...	...	...	646	= 1,857
		Total	...	...	3,167

An annual grant of Rs. 20 per mile has been promised by the District Committee in aid of the repair of the Tons-Chakráta road.

TONS.—The following statement shows the expenditure during the year:—

					Rs.
Repairs of existing roads and bridges	...	...	...	...	1,630
About 11 miles of new inspection paths	...	...	...	...	470
			Total	...	2,100

The cost of repairs was heavy last year ; a portion of the Tons river path had altogether disappeared, and its renewal alone cost Rs. 1,202.

42. *Buildings.*—The expenditure may be thus distributed :—

	Rs.	Rs.
Repairs of existing buildings		2,107
Construction of students' quarters (paid as an advance to the P. W. D.)	8,000	
Ditto officers' rest-houses	3,544	
Ditto rangers and foresters' houses ...	1,120	
Ditto revenue chaukis and other buildings ...	2,421 =	15,085
Total		18,192

The following is a list of the buildings which have been constructed and are maintained for the use of officers and subordinates employed in the forest divisions :—

Description.	For the use of		Offices, stores, &c	Wells.	Total.
	Officers.	Subordinates.			
Dehra Dún.					
Permanent	1	6	...	...	7
Semi-permanent	2	14	2	...	18
Temporary	7	20	..	...	27
Total ...	10	40	2	...	52
Saháranpur.					
Permanent	3	1	...	4	8
Semi-permanent	...	1	...	...	1
Temporary	...	22	...	...	22
Total ...	3	24	...	4	31
Jaunsár.					
Permanent	6	8	3	...	17
Semi-permanent	2	7	3	...	12
Temporary	...	...	...	...	...
Total ...	8	15	6	...	29
Tons.					
Permanent	5	...	1	...	6
Semi-permanent	2	6	1	...	9
Temporary	...	2	4	...	6
Total ...	7	8	6	...	21
GRAND TOTAL ...	28	87	14	4	133

The expenditure incurred in the several divisions is thus accounted for :—

DIRECTION.—The following expenditure was incurred, *viz.* :—

	Rs.	Rs.
Paid to the Public Works Department on account of new students' quarters ...		8,000
Additions and alterations to main School building	791	
Petty repairs of ditto ditto	386 =	1,177
Total ...		9,177

DEHRA DÚN.—The following is an account of the expenditure incurred :—

Repairs of existing buildings		615
Construction of new officers' rest-houses	1,483	
Ditto rangers' and foresters' houses	457	
Ditto revenue chaukis	1,696	
Ditto elephant shed	111 =	3,747
Total ...		4,362

SAHÁRANPUR.—The expenditure was as follows :—

Repairs of existing buildings	273
Construction of new officers' rest-house at Dholkand	1,670
Total ...	1,943

JAUNSÁR.—The expenditure may be thus stated :—

Repairs of existing buildings		791
Collecting materials for new officers' rest-house at Chakráta	88	
Construction of new rangers and foresters' houses	663	
Ditto forest guards' houses	229	
Ditto stable at Kanjátra	197 =	1,177
Total ...		1,968

TONS.—The expenditure was as follows:—	Rs.	Rs.
Repairs of existing buildings		251
Construction and purchase of new officers' rest-houses	303	
Depôt chauki and godown	188 =	491
Total ...		742

43. *Other works.*—Rs. 786 have been expended under A.VII. (*c.*), (other works), of which Rs. 197 were spent in the School compound, Rs. 541 on wells in Saháranpur; Rs. 33 on wells in Dehra Dún, and Rs. 15 in the Tons division.

CHAPTER IV.

Yield and working.

Departmental operations.

43 (*a*). *Maintenance of departmental work.*—With reference to the orders contained in para. 11 of a letter No. 321 F., dated 12th April, 1883, from the Government of India to the Government of the North-Western Provinces and Oudh, and to the orders of the Local Government thereon, it may be said that departmental timber operations have entirely ceased in the Dún and Saháranpur divisions, except such as are undertaken in order to obtain the few trees which may from time to time be required for departmental use. It is most desirable to maintain the departmental timber works in the Tons division until the Deota forest has been worked out, in order that the slide, roads and buildings may be fully utilized by the Department; but it will always be necessary to maintain some departmental timber works in the hills for purposes of instruction, and it is probable that it may be possible to undertake such work in the Dharagádh forests at an early date. It is unlikely that, for the present at any rate, it will be possible to undertake the supply of timber and firewood to the station of Chakrata otherwise than by departmental agency.

44. *Trees felled.*—The trees felled during the year were as follows :—

	No.	Cubic feet.
Selection fellings	1,898	271,709
Thinnings	208	11,942
Total ...	2,106	283,651

as compared with 2,321 trees, measuring 451,981 cubic feet, during the previous year. The selection fellings were almost entirely made in the Jaunsár and Tons divisions for the supply of timber and firewood for Chakráta and of sleepers for the railways, while the thinnings were all made in the Jaunsár division for the supply of firewood to Chakráta. Fewer trees were felled in the Tons division, as 500 deodar trees were lying felled in the forest at the commencement of the year. The average cubic contents of the trees, 135 cubic feet, was less than that of those felled during 1881-82, and this, together with the smaller number of trees felled, accounts for the reduction in the total number of cubic feet. As regards species, the trees felled in 1882-83 may be classed as follows :— Sál 46, firs and pines 932, oaks 351, deodars 770, miscellaneous 7.

DEHRA DÚN.—46 sál trees were felled for departmental use; there were no fellings during the previous year.

JAUNSÁR.—The total number of trees felled was 1,316; 726 of these trees were firs and pines, 351 were oaks, 132 were deodars, and 7 were miscellaneous; the timber was required for the station of Chakráta. The number felled during the previous year was 952.

TONS.—The total number of green and dry deodar trees was 636, which were nearly all felled in the Deota forest for conversion into sleepers; the trees were selected by Mr. Moir on the same principles as have hitherto guided this operation. The ground being steep, many of the trees were seriously damaged in their fall, but by felling from the top of the forest downwards these evil effects were somewhat reduced; 25 trees, which it was not intended to fell, were knocked down by the fall of their neighbours. As a matter of course the injuries to young growth during felling operations in the hills are considerable, but the young deodars possess strong recuperative powers. 34 dry deodar trees were felled in Raiengarh, and 206 chir (*P. longifolia*) were felled in Deota, for departmental use. The number of trees felled during the previous year was 1,369.

45. *Outturn of timber and other produce.*—The outturn for 1882-83 and that for the previous year were as follows :—

	1881-82.		1882-83.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber (cubic feet)	237,777	1,05,686	88,065	63,318
Poles and saplings (No.)	4,809	3,225	250	61
Bamboos (scores)	138	62	...	...
Firewood (maunds)	28,169	20,157	28,257	20,435
Charcoal (maunds)	405	231	1,110	1,249
Minor produce represented by Rs.	...	6	...	...
Total ...	...	1,29,367	...	85,058

The large difference in the amount of timber is due to the purchase in 1881-82 of the Raiengarh sleepers from Messrs. Winton and Braidwood. The poles and saplings shown in 1881-82 were nearly all confiscated from a timber merchant, and the quantity shown in 1882-83 is thus much less than that shown in the former year. A larger amount of charcoal was made in the Jaunsár division during 1882-83.

Dehra Dún.—1,296 cubic feet of timber and 250 poles, cut from the forests and valued at Rs. 1,357, were used departmentally ; and 1,529 cubic feet of drift and confiscated wood were sold for Rs. 478. A smaller quantity of timber was required in 1881-82, while, in consequence of the confiscation of a merchant's timber, a large number of poles were obtained in that year. No charcoal was made in 1882-83.

Sahárunpur.—47 cubic feet of drift timber and 200 maunds of drift firewood were collected from the Ganges and sold for Rs. 30. The collection of produce by Government agency has now almost ceased.

Jaunsár.—7,798 cubic feet of timber (valued at Rs. 10,001), 28,057 maunds of firewood (valued at Rs. 20,419), and 1,110 maunds of charcoal (valued at Rs. 1,249) formed the outturn of the year. The outturn of timber was 1,917 cubic feet more than that of the previous year ; and an additional quantity of charcoal, amounting to 908 maunds, was manufactured in order to dispose of the yield of the coppicing operations at Kurwa.

Tons.—The outturn of the year was 65,393 cubic feet of deodar sleepers and 12,002 cubic feet of chir (*P. longifolia*) timber, the aggregate value of which is estimated to be Rs. 51,524 ; the chir wood was used by the Department. The difference between the outturn of 1882-83 and that of the previous year is almost entirely due to the purchase during 1881-82 of the Raiengarh timber from Messrs. Winton and Braidwood. The number of good metre-gauge deodar sleepers per tree was 62, which very nearly corresponds with the figures of the previous year.

46. *Account of timber and other produce.*—The following statement shows the transactions of the year :—

	Timber (*cubic feet.*)	Receipts. Firewood (*maunds*)	Charcoal (*maunds.*)
Balance at commencement of year ...	18,854	5,133	...
Received in depôts	66,584	28,461	496
Received from forests and sold locally ...	3,899	2,569	620
Ditto ditto and used by Department	1,796	...	...
Total ...	91,133	36,163	1,116
		Disposals.	
Sold from depôts	66,905	31,916	181
Sold locally	3,899	2,569	620
Otherwise disposed of	2,787	31	...
Total ...	73,591	34,516	801
Balance at close of year ...	17,542	1,647	315

47. *Sales to Public Departments.*—Again, the sales to Public Departments took place in the hill divisions only, and consisted of supplies of timber, firewood, and charcoal for the station of Chakráta, and of sleepers for the State railways. The following table shows the results of these transactions for the last four years :—

Year.	Amount of revenue.			Cost to Forest Department.			Surplus.
	Due.	Received	Outstanding.	Timber expenses under A.I.	Quota of other charges.	Total.	
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.
1879-80	2,05,392	2,05,392	...	82,455	34,103	1,16,558	88,834
1880-81	1,11,003	1,11,003	...	79,873	8,098	87,971	23,032
1881-82	1,21,540	1,21,202	338	94,834	10,440	1,05,274	16,266
1882-83	1,07,250	1,03,080	4,170	77,488	9,477	86 965	20,285
Average ...	1,86,296	1,85,169	1,127	83,662	15,530	99,192	37,104

During the year 2,735 cubic feet of timber, 37,027 maunds of firewood, and 167 maunds of charcoal were supplied to the Public Works and Commissariat Departments at Chakráta, and 42,289 deodar sleepers were supplied to the Rajputána-Málwa State Railway and the Muttra Bridge division.

48. *Raiengarh timber.*—80,677 broad-gauge and 3,911 metre-gauge sleepers were carried from the forest depôt to the bank of the Pábar river, and 21,781 broad-gauge and 4,838 metre-gauge sleepers were floated from Raiengarh to the Dún; about 19,000 of the former kind have been sold since the close of the financial year. A few sleepers only now remain lying in the forest.

49. *Transport of sleepers to the river.*—The Deota slide was employed, as usual, in order to carry the sleepers over the last 2½ miles of their passage into the Tons river; the sleepers were carried to the head of the slide on men's backs. Mr. Hobart-Hampden, acting under the orders of Mr. Moir, has constructed an experimental "sledge road," 1,265 feet in length, in the Katatách block of the Deota forest. This road-way is formed of rejected sleepers, and the sledges are made of moru oak; the gradient varies from 4 to 10 degrees, and some of the curves have a radius of 18 feet only; each sledge can carry 12 metre-gauge sleepers, and two men are required to accompany it. A line of sledge-road for practical use has now been laid out in the Jaurási block, the length being about 1½ miles. The most suitable gradient appears to be from 6 to 8 degrees, but it is thought that it will be possible to work over gradients of 10 degrees. The cost of construction per mile of road is estimated to be about Rs. 700, and the sledges, of which about 10 per mile will be required, cost Rs. 12 each. About one lakh of sleepers will be carried over this road, and it is anticipated that a considerable saving will be effected by its use.

50. *Export of timber to England.*—At the suggestion of Messrs. Churchill and Sim a small consignment of tun and thanella (*Gardénia turgida*) was sent to them from the Dún division. They have not reported very favourably on the tún, and their report on the thanella is unfavourable; the consignment cost Rs. 446, and the sum realized was Rs 226 only, the loss being Rs. 220.

A small consignment of kakar (*Pistacia integerrima*), olive (*olea cuspidata*) and walnut was sent from the Jaunsár division to Messrs. Gardner and Co. for a report, which has not yet been received. Ninety-eight box trees had been felled in the Jádi forest in the winter of 1881-82, and the trees yielded 925 cubic feet, weighing 793

maunds; this wood was sent to England in March, 1882, and the following is a statement of the charges connected therewith :—

	Rs.
Cutting and carriage to Chakráta	324
Carriage to Sahárunpur	595
Marking, storage, &c.	118
Railway to Karáchi	1,524
Freight to London	1,045
Agents' charges	115
Total ...	3,786

The wood sold, at £15 per ton, for £404-16-0, and after payment of discount (£10-2-5) and Messrs. Churchill and Sim's charges (£26-0-3), the sum of £368-14-0 was paid into the India Office. At the current rate of exchange this represents Rs. 4,480, so that the profits on the transaction may be said to have been Rs. 694.

51. *Loss of weight in stacked firewood.*—The experiments made by Mr. Hearle show that fir firewood kept under cover becomes practically dry after a period of 18 months, and that 365 cubic feet of such wood weigh 100 maunds. In September, 1880, 1,200 cubic feet (stacked) of fir firewood lying in the forest weighed 516 maunds, or 233 cubic feet weighed 100 maunds; in November, 1881, the same wood weighed 338 maunds, or 355 cubic feet weighed 100 maunds. In November, 1882, a part of the wood had decayed and absorbed a quantity of water, so that the experiment could not be continued.

Removal of produce by purchasers.

52. *Trees felled.*—The trees felled by contractors or purchasers were as follows:—

	No.	*Cubic feet.*
Selection fellings	3,334	169,608
Thinnings	3,743	44,916
Total ...	7,077	214,524

as compared with 7,575 trees, measuring 295,457 cubic feet, felled during the previous year; the principal difference occurs in the Tons division, where fewer chír trees were sold. The trees were cut up and removed in the form of scantlings.

53 *Produce removed.*—The amount of produce removed by purchasers during the year, including drift and confiscated timber, firewood, and minor produce, is thus compared with the figures of the previous year—

	1881-82.		1882-83.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber (cubic feet)	378,136	37,495	284,883	33,206
Poles and saplings (No.)	36,887	15,371	18,111	3,657
Bamboos (scores)	132,791	9,006	92,623	7,096
Firewood (maunds)	191,085	8,528	230,993	10,275
Charcoal (maunds)	1,635	467	818	136
Minor produce represented by Rs. ...	...	11,684	...	11,546
Grazing dues represented by Rs. ...	...	25,133	...	22,057
Total ...	...	1,07,784	...	87,973

The amount of *timber* sold during the year was less by 93,253 cubic feet, value Rs. 4,290. There was an increase in the Dún owing to a larger number of trees having been cut in the Tehri-Garhwál leased forests, and a larger number of chír trees and bákli karris was sold from Jaunsár; but the fellings of green timber in Sahárunpur have been nearly brought to a close, and a smaller number of deodar and chír trees was sold from the Tons. The amount of *poles and saplings* was less by 18,776 pieces, value Rs. 11,714; this is chiefly because the supply of dry sál tors in the Dún

has been nearly exhausted, and because the Canal Department did not take wood for the river bunds. The number of *bamboos* was 47,168 scores, value Rs. 1,910, less than during the previous year, owing chiefly to the forests having been overworked. The amount of *firewood* was more by 39,908 maunds, value Rs. 1,647; this difference chiefly occurred in the Saháranpur division, but as the figures are largely composed of estimates of the amount exported under leases, much dependence cannot be placed on them. The figures relating to *charcoal, minor produce,* and *grazing dues* do not call for special remark.

Dehra Dún.—The timber exported by purchasers was 15,888 cubic feet, value Rs. 26,787, as compared with 139,825 cubic feet, value Rs. 24,216, during the previous year. A larger number of trees was felled in the Tehri-Garhwál leased forests, but the thinnings at Rámgarh were reduced, because the sale of the inferior species had to be postponed until the sál and sain had been removed; the rates were somewhat lower, but the result was an increase in value of Rs. 2,571. The number of poles and saplings removed was 4,914, value Rs. 2,512, as compared with 27,961, value Rs. 12,911, during the previous year; the reason of this is that the supply of dry sál tors in the forests has been very much reduced, and the Canal Department did not take any wood for their bunds during the year under report. 52,364 scores of bamboos, value Rs. 4,134, were removed during 1882-83, as compared with 97,217 scores, value Rs. 5,301, during the previous year; this is due to the bamboo forests having been over-cut. There is not much change in the figures relating to firewood, of which 50,066 maunds, value Rs. 2,672, were removed. Only 55 maunds of charcoal were removed as compared with 1,825 maunds during the previous year. The sales of minor produce do not differ much from those of the previous year. The amount received as grazing dues was reduced owing to fewer Gujars' cattle having entered the forests, and to the elephants with the ex-Amir of Kabul having obtained much of their fodder from private forests.

Saháranpur.—The amount of timber removed was 7,525 cubic feet, value Rs. 1,625, as compared with 24,128 cubic feet, value Rs. 6,882, during the previous year; this is due to the export of green timber having been almost entirely stopped. The number of poles and saplings removed during the year was 11,816, value Rs. 1,047, as compared with 7,108, value Rs. 2,386, during the previous year; the wood sold last year was of an inferior quality. The number of bamboos was 20,495 scores, value Rs. 2,561, as compared with 37,420 scores, value Rs. 3,528, during the previous year; the reduction was caused by some of the blocks having been closed in connection with the fire conservancy arrangements. The amount of firewood was 1,75,080 maunds, value Rs. 7,295, as compared with 1,33,789 maunds, value Rs. 5,558, during the previous year; as these figures are composed largely from the estimated exports by lessees, much dependence cannot be placed on them. The amount of minor produce removed does not differ much from that of the previous year. The grazing dues were less by Rs. 896.

Jaunsár.—The amount of timber removed was 13,580 cubic feet, value Rs. 1,400, as compared with 6,663 cubic feet, value Rs. 607, during the previous year; the difference being mainly due to the sale of a large number of chír trees and bákli scantlings. The number of poles and saplings removed was 1,131, value Rs. 98; these figures do not differ materially from those of the previous year. The number of bamboos was 19,769 scores, value Rs. 403, as compared with 5,154 scores, value Rs. 177, during 1881-82. The ringals flowered, and the price having been lowered, a much larger export took place. The amount of firewood removed was 5,847 maunds, value Rs. 308; the figures differ only slightly from those of the previous year. The same may be said of figures relating to charcoal, minor produce, and grazing.

Tons.—The amount of timber removed was 111,050 cubic feet, value Rs. 3,396, as compared with 207,520 cubic feet, value Rs. 5,790, during 1881-82; 180 fewer deodar trees and 317 fewer chír trees were sold; the purchaser of the chír trees sold during the previous year is believed not to have made much profit on them. The amount received on account of grazing dues does not differ much from that received during the previous year.

54. *Farming leases.*—A large extent of the open forests and a part of the closed forests in the Dún and Saháranpur divisions were leased to contractors; the Kálsi forest of the Jaunsár division was also leased. The total sum realized was Rs. 27,045; as explained last year, it is very difficult to estimate the amount of produce removed under these leases, but an attempt to do this has now been made.

Dehra Dún.—The system of leases in the open forests was continued, except in the cases of Motichur, Kánsrau and Ambári, and the closed forest of Tháno was also leased; the leases realized Rs. 12,261. When the lease included several articles, a distribution of the amount under the various heads was effected by guess-work. Standing dead timber was included in most of the leases.

Saháranpur.—The open blocks in the central and eastern ranges were leased, and the closed blocks were also leased for a short period after the rain the amount realized was Rs. 13,829, which was distributed among the various heads of account.

Jaunsár.—The lease of the Kálsi forest was sold for Rs. 805.

Tons.—The drift wood on the Jumna was leased for Rs. 150.

Free grants of forest produce.

55. *Trees felled.*—The number of trees felled was 5,111, measuring 561,778 cubic feet, as compared with 9,141 trees, measuring 886,208 cubic feet, during the previous year. The number given from the Jaunsár division was 998, and that from the Tons division was 4,113 ; the number of trees taken varies very much with the condition of the country and the state of the crops.

56. *Produce removed.*—The following statement shows the amount of produce removed as compared with the figures of the previous year :—

	1881-82.		1882-83.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber (cubic feet)	998,175	24,254	585,208	16,611
Bamboos (scores)	14	4	5	2
Firewood (maunds)	2,500	156	1,700	106
Total ...	...	24,414	...	16,719

By far the larger amount was given in the Tons division from the leased forests. Wherever there was a fixed allowance, the amount actually asked for was less than this.

Summary of produce removed from the forests.

57. *Statements prescribed by Government.*—In the orders of Government dated 27th March last, the submission of three statements regarding trees felled, the yield of the forests, and the disposal of produce collected by Government agency was prescribed. In preceding paragraphs of this chapter the information under these heads as regards (i) departmental operations, (ii) the removal of produce by purchasers, and (iii) free grants of produce, has been given separately in the prescribed form. The statements giving a complete summary will be found in appendices F., G. and H , and each of them will now be explained ; their preparation has proved somewhat troublesome, as the information is not all obtainable from the forms which are usually prepared.

Appendix (F.)—Statement of trees felled.—It has been understood that this statement is intended to be based on form No. 58, which has been expanded so as to show all trees felled in the Circle, whether by Government agency or by contractors or villagers ; and the trees have been subdivided into selection fellings, thinnings, and clearances. Nothing but *trees* has been shown ; poles, saplings, and firewood, &c., have not been included. Selection fellings by Government agency have been taken from form No. 58 ; thinnings and clearances by Government agency consist of whole trees shown in form No. 59, together with trees felled during the year and yielding a part of the converted timber shown in that form. Under the head of fellings by contractors are included the *whole trees* from form No. 63, together with the trees which produced the timber sold by the cubic foot, score of scantlings, &c., and shown as disposed of in that form. The fellings by villagers are all free grants. It will be seen that although the figures in this statement are based on information extracted from forms Nos. 58, 59 and 63, they cannot be checked from those forms, but the statement shows correctly the whole of the trees felled during the year. The fellings include 14,294 trees, estimated to contain 1,059,953 cubic feet of timber, as compared with 19,037 trees, containing 1,633,646 cubic feet, felled during the previous year. 10,343 trees appear under the head of selection fellings, and 3,951 trees under the head of thinnings ; while of these 2,106 were felled by Government agency, 7,077 by contractors, and 5,111 by villagers. The principal cause of the reduction in the total number of trees felled is that the demand for free grants was not so great as in the previous year, but fewer deodar trees were felled in the Tons division, as 500 were lying in the forest at the commencement of the year, and

fewer chír trees were disposed of, as the contractor who purchased timber of this kind during 1881-82 did not make a good profit out of it.

Appendix (*G.*)—*Yield in produce.*—This statement comprises the produce shown in forms Nos. 59 and 63, together with drift and confiscated wood removed by purchasers and free grants to villagers. In the case of the items shown in form No. 59, where information regarding value is not to be found, the value of produce not actually sold has been estimated; where the cubic contents of timber shown in form No. 63 have not been given, an estimate has been made: the quantity of drift and confiscated wood removed by purchasers is not shown in any of the regular forms; the quantity and value of free gifts are not shown in any of the forms, and the value has now been estimated, but next year it is proposed to show free gifts in form No. 63, the money columns being left blank. It will therefore be seen that although this statement is in part based on the figures in forms Nos. 59 and 63, it cannot be checked from those forms, and the figures in the last column, although they represent as true an estimate as can at present be framed of the value of the yield in material, do not coincide with those representing the revenue realized during the year, which latter represent the sale of only a part of the produce shown in form No. 59, and do not show anything for free grants. The figures given include the estimated quantities of produce exported under leases, and are therefore liable to considerable error, but the best possible estimate has been made. The total estimated value of the yield in material was Rs. 1,89,750 as compared with Rs. 2,61,565 during the previous year. The amount due to departmental work is Rs. 85,058, that due to removal of produce by purchasers is Rs. 87,973, while the value of free grants is estimated to be Rs. 16,719. The important variations are to be found under the head of timber, poles, and saplings. As regards *timber*, the reduction is accounted for by the purchase in 1881-82 of Messrs. Winton and Braidwood's Raiengarh timber, by the smaller demand for free grants and by the stoppage of the felling of green timber in Saháranpur; but the amount cut by purchasers in the Dún and Jaunsár was somewhat increased. As regards *poles and saplings* the variation occurs chiefly in the Dún, where the quantity has been reduced, partly owing to the supply of dry sál tors having been much lessened, partly owing to the Canal Department not having taken wood for the Ganges river bunds, and also partly because in 1881-82 a large number of poles and saplings were confiscated from a contractor.

Appendix (*A.*)—*Disposal of produce collected by Government agency.*—This statement is compiled entirely from form No. 62, and it shows separately the produce sold locally and that disposed of in depôts. The value of produce sold locally was Rs. 3,996 as compared with Rs. 5,437 during the previous year; the reduction occurred principally in the Dún division, where a considerable quantity of confiscated timber was sold in 1881-82. An abstract of the depôt transactions is given in para. 46, and it need only be said here that the balance shown in the appendix as being in hand at the close of 1881-82 and that shown as in hand at the commencement of 1882-83 differ by 2,400 cubic feet and Rs. 9,458. This is because Rs. 10,358 were added on a revaluation of the timber in the Jaunsár division, and 1,800 sleepers, measuring 2,400 cubic feet, and valued at Rs. 900, were struck off from the Tons division.

58. *Special circumstances affecting the School Circle.*—A general account of the divisions composing this Circle has been given in para. 5, but it may here be repeated that while in the hill divisions there is plenty of timber available, the local demand, except for free grants, is confined almost entirely to the supply of timber and fuel to the station of Chakráta, while the heavy expense of carriage and the low prices obtainable render it impossible at the present time to undertake the export to the plains of any wood other than deodar, which is now utilized in the form of railway sleepers; the market appears to be now well supplied with these sleepers, which come chiefly from Kashmir, and the prices have in consequence fallen very much during the last few years. The number of sleepers exported by native merchants has largely increased of late; the merchants purchase from the hill chiefs the right to cut their timber,

and as they clear the whole forest out, and after they have completed their work of destruction are put to no further expense in connection with it, they can of course afford to sell their sleepers at a cheap rate. Broad-gauge sleepers now only fetch about Rs. 3-12-0, and metre-gauge sleepers about Rs. 1-14-0 at Delhi, whereas the prices used to be about Rs. 5 and Rs. 2-4-0 respectively. The actual average selling price of last year's metre-gauge sleepers was Rs. 1-13-8, while the actual expenditure, *excluding* share of general charges and interest on capital expenditure, was Rs. 1-4-1, thus leaving an apparent profit of Re. 0-9-7 on each sleeper. This shows an improvement on the previous year's work, which may be accounted for by the more careful selection of the sleepers in the forest, and by their having been taken over by the railway department almost immediately on their arrival at Delhi. The demand in the hill divisions for produce other than timber is extremely small, and grazing dues are, generally speaking, not leviable; but should a demand arise for fir and pine wood at remunerative prices, the prospects of the hill divisions will be very largely improved. In the Dún and Saháranpur, where the timber is accessible and the demand for first class wood is brisk, the forests have been denuded of all, or nearly all, mature trees of the more valuable species; but there is a good demand for such green timber as can be given, and for the dry wood lying in the forests, as well as for bamboos and minor produce, and the sum received as grazing dues forms an important item of revenue. No great improvement in the yield of these forests can be expected until they have had time to grow up. It is believed that the forests of the Central Circle still contain a large stock of mature sál trees.

Imports and exports of forest produce.

59. *General.*—It cannot be said that there are any imports of forest produce, though timber from country not under the control of this Department is brought down the Pábar, Tons and Jumna rivers, and carried past the forests of the School Circle to the plains below. That portion of the produce of this Circle which is not consumed locally is chiefly used by the State railways, or bought by merchants from Meerut and other large neighbouring towns.

Stock.

60. *General.*—The statement prescribed in Government orders of the 27th March last will be found in appendix (J). The value of stock has been raised by Rs. 10,890, chiefly due to a revaluation of the stock of timber in the Jaunsár division.

CHAPTER V.

Financial Results.

Receipts and expenditure.

61. The financial results of the year under Receipts and Expenditure compare as follows with those of the two preceding years :—

Division.	Receipts.			Expenditure.			Surplus.		
	1880-81.	1881-82.	1882-83.	1880-81.	1881-82	1882-83.	1880-81	1881-82.	1882-83.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún ...	54,948	64,068	53,271	31,248	31,489	44,929	+23,700	+32,579	+8,342
Saháranpur ...	27,080	38,236	32,720	18,106	15,188	20,476	+8,974	+23,048	+12,244
Jaunsár ...	30,570	44,682	32,024	38,0 7	51,035	41,000	−7,467	−6,353	−8,97
Tons ...	90,030	1,03,750	96,448	76,992	2,25,490	98,861	−13,038	−1,21,740	−2,413
Direction ...	14	175	507	35,718	63,611	58,403	−35,704	−63,436	−57,896
Total ...	2,02,642	2,50,911	2,14,970	2,00,101	3,86,813	2,63,669	+2,541	−1,35,902	−48,699

Sources of revenue.

62. The receipts were derived from the following sources :—

Divisions.	Timber and other produce removed from the forests by Government agency.		Timber and other produce removed from the forests by consumers or purchasers.		Confiscated, drift and waif wood.		Revenue from forests not managed by Government.		Miscellaneous.		Total.	
	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún ...	280	...	59,950	52,043	3,596	948	...	...	292	280	64,068	53,271
Sahâranpur ...	46	...	36,682	28,784	1,346	3,124	...	...	162	812	38,236	32,720
Jaunsár ...	37,188	27,709	2,781	3,924	33	17	...	...	4,685	284	44,682	32,024
Tons ...	91,492	85,346	5,942	3,350	150	154	5,521	7,011	645	387	1,03,750	96,448
Direction ...	...	...	...	...	...	...	...	...	175	507	175	507
Total ...	1,28,951	1,13,145	1,05,355	88,301	5,125	4,243	5,521	7,011	5,959	2,270	2,50,911	2,14,970

Expenditure under A. and B.

63. The following tables show the expenditure under the two main heads, (A) conservancy and works and (B) establishment :—

Divisions.		Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers and purchasers.	Confiscated, drift and waif wood.	Revenue from forests not managed by Government.	Rent of leased forests.	Live stock, stores, &c.	Communication and buildings.	Demarcation and improvements.	Miscellaneous.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún ...	1881-82 ...	48	617	34	...	1,851	2,369	3,200	7,178	1,025	16,322
	1882-83 ...	9	953	158	...	1,851	1,985	7,419	8,918	3,016	24,304
Sahâranpur ...	1881-82 ...	145	5,086	186	...	...	810	410	2,705	984	10,326
	1882-83 ...	...	5,160	16	...	...	807	2,991	5,058	250	14,282
Jaunsár ...	1881-82 ...	26,538	...	...	...	...	141	6,357	2,683	5,170	40,889
	1882-83 ...	22,804	...	...	...	...	339	5,136	2,801	503	31,583
Tons ...	1881-82 ...	2,00,856	...	...	...	6,650	413	2,391	1,676	403	2,12,989
	1882-83 ...	74,492	...	...	930	6,650	162	2,857	1,469	167	86,727
Direction ...	1881-82 ...	...	...	...	...	...	5,911	12,288	1,584	2,876	22,659
	1882-83 ...	...	...	...	...	...	1,455	9,446	730	3,890	15,521
Total ...	1881-82 ...	2,27,587	5,703	220	...	8,501	9,644	24,626	15,726	10,458	3,02,465
	1882-83 ...	97,305	6,113	174	930	8,501	4,748	27,849	18,971	7,826	1,72,417

B.

Divisions.	I. Salaries.		II. Travelling allowances.		III. Contingencies.		Total.	
	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún	13,202	17,026	1,217	2,540	748	1,057	15,167	20,625
Sahâranpur	3,418	4,168	710	1,265	735	761	4,863	6,194
Jaunsár	8,532	7,992	1,397	1,083	217	342	10,146	9,417
Tons	10,892	10,345	1,889	1,383	420	406	13,201	12,134
Direction	33,361	35,127	5,708	5,232	1,902	2,523	40,971	42,882
Total ...	69,405	74,660	10,921	11,503	4,022	5,089	84,348	91,252

Receipts and expenditure under the three great heads.

64. The receipts and expenditure under the three great heads—

I.—Departmental timber operations,

II.—Other revenue,

III.—Formation, protection and improvement of the forests,

were as follows :—

Divisions.		Departmental timber operations.			Other revenue.			Formation, protection and improvement charges.	Net surplus.
		Receipts.	Charges.	Surplus.	Receipts.	Charges.	Surplus.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún.	1879-80 and 1880-81,	9,475	4,164	5,311	86,955	18,704	68,251	36,937	36,625
	1881-82 ...	230	48	182	63,838	10,444	53,394	20,997	32,579
	1882-83 ...	...	9	—9	53,271	6,408	46,863	38,512	8,342
	Total ...	9,705	4,221	5,484	2,04,064	35,556	1,68,508	96,446	77,543
	Average ...	2,426	1,055	1,371	51,016	8,889	42,127	24,111	19,387
Sahéranpur.	1879-80 and 1880-81,	...	5	—5	58,584	21,580	37,004	17,622	19,377
	1881-82 ...	46	145	—99	38,190	9,250	28,940	5,793	23,049
	1882-83 ...	...	...	...	32,720	9,330	23,390	11,146	12,244
	Total ...	46	150	—104	1,29,494	40,160	89,334	34,561	54,669
	Average ...	11	37	—26	32,373	10,040	22,333	8,640	13,667
Jaunsár.	1879-80 and 1880-81,	55,661	45,133	10,528	5,279	2,858	2,921	21,146	—7,697
	1881-82 ...	37,183	31,082	6,101	7,499	5,813	1,686	14,140	—6,353
	1882-83 ...	27,799	27,178	621	4,225	1,113	3,112	12,709	—8,976
	Total ...	1,20,643	1,03,393	17,250	17,003	9,284	7,719	47,995	—23,026
	Average ...	30,161	25,848	4,313	4,251	2,321	1,929	11,999	—5,757
Tons.	1879-80 and 1880-81,	2,73,311	1,50,101	+1,23,210	804	2,480	—1,676	33,585	+87,949
	1881-82 ...	91,492	2,06,942	—1,15,450	12,258	1,254	+11,004	17,294	—1,21,740
	1882-83 ...	85,346	79,924	5,422	11,102	1,863	+9,239	17,074	—2,413
	Total ...	4,50,149	4,36,967	13,182	24,164	5,597	18,567	67,953	—36,204
	Average ...	1,12,537	1,09,242	3,295	6,041	1,399	4,642	16,988	—9,051
Direction.	1879-80 and 1880-81,	...	21,062	—21,062	14	7,692	—7,678	56,344	—85,084
	1881-82 ...	...	38,342	—38,342	175	7,048	—6,873	18,224	—63,436
	1882-83 ...	...	37,247	—37,247	507	6,855	—6,348	14,301	—57,896
	Total ...	...	96,651	—96,651	696	21,595	—28,099	88,869	—2,06,416
	Average ...	...	24,163	—24,163	174	5,399	5,225	22,216	—51,604
The Circle.	1879-80 and 1880-81,	3,38,447	2,20,465	1,17,982	1,51,637	52,814	98,823	1,65,635	51,170
	1881-82 ...	1,28,951	2,76,559	—1,47,608	1,21,960	33,809	88,151	76,445	—1,35,902
	1882-83 ...	1,13,145	1,44,358	—31,213	1,01,825	25,569	76,256	93,742	—48,699
	Total ...	5,80,543	6,41,382	—60,839	3,75,422	1,12,192	2,63,230	3,35,822	—1,33,431
	Average ...	1,45,136	1,60,346	—15,210	93,855	28,048	65,807	83,955	—33,358

The receipts and charges have been distributed in the manner explained in para. 35 of last year's report ; but the form of the statement has been expanded so as to give the results for the year under report and those for the previous year separately for each division and for the Circle, and also to embrace the results of previous years (two years only available); for it is only by a consideration of the figures representing the transactions of a series of years that a just estimate of the results can be formed. The yearly averages for each division and for the Circle are also given. The aggregate receipts were Rs. 2,14,970 as compared with Rs. 2,50,911 in 1881-82 and Rs. 2,02,642 in 1880-81. The aggregate expenditure was Rs. 2,63,669 as compared with Rs. 3,86,813 in 1881-82 and Rs. 2,00,101 in 1880-81 ; and the aggregate net deficit was Rs. 48,699 as compared with a deficit of Rs. 1,35,902 in 1881-82 and a surplus of Rs. 2,541 in 1880-81.

Main facts relating to each division.

65. In the following table (the form of which is adopted from that given in para. 23 of the Government review on last year's report) are collected the main facts relating to the several forest divisions :—

Divisions.	Area in acres.	Yield of timber, in cubic feet.	Kind of timber.	Yield of timber per acre, in cubic feet.	Total receipts.	Receipts per acre.	Total expenditure.	Expenditure per acre.	Total surplus or deficit.	Ratio of expenditure to receipts.	Surplus per acre.
					Rs.	Rs.	Rs.	Rs.	Rs.		Rs.
Dehra Dún,	177,724	154,713	Sál, sain, chír and bakli.	·87	53,271	·3	44,929	·2	+8,342	·84	·05
Saháranpur,	190,380	7,572	Sál, sain, jaman, khair, &c.	·04	32,720	·2	20,476	·1	+12,244	·63	·06
Jaunsár ...	79,291	152,448	Deodar, fir, oak, &c.	1·92	32,024	·4	41,000	·5	−8,976	1·28	...
Tons ...	49,516	643,423	Deodar and chír.	12·99	96,448	1·9	98,861	·2	−2,413	1·03	...
Direction,	...	...	...	...	507	...	58,403	...	−57,896	115·1	...
Total ...	496,911	958,156		1·93	2,14,970	·4	2,63,669	·5	−48,699	1·23	...

It is suggested that the receipts, expenditure and surplus per acre would be better given in annas than in decimals of a rupee. The yield in *timber* is taken from appendix (G.), neither poles, saplings, bamboos, firewood, charcoal, nor minor produce being included.

Principal causes of variation in the revenue and expenditure.

66. A general account of each division has already been given in para 5, and it will suffice in this place to explain the principal causes of variation between the revenue and expenditure of 1882-83 as compared with those of the previous year.

Revenue.—The revenue was less than that of 1881-82 by Rs. 35,941, and this is accounted for as follows :—The sale of fewer sleepers in the Tons division caused a diminution of Rs. 2,918 ; Rs. 12,851 less were received for firewood and charcoal removed by Government agency, as the troops did not remain for the winter at Chakráta ; timber removed by purchasers shows a decrease of Rs. 12,285, chiefly on account of the stoppage of the felling of green trees in Saháranpur ; previous overcutting of bamboos necessitated a restriction in the number which were allowed to be exported, and this caused a reduction of Rs. 1,901 ; the revenue on grazing dues fell off by Rs. 3,074, chiefly in the Dún, where fewer Gujars grazed their buffaloes, and the revenue on elephants' fodder was reduced ; and the receipts on account of boxwood were reduced by Rs. 4,171, owing to the money having this year been paid in England and credited in the Home accounts. The Jumna river dues show an increase of Rs. 1,490 over the receipts of the previous year.

Expenditure.—The expenditure was less than that of 1881-82 by Rs. 1,23,144, which is accounted for thus :—The charges on account of timber removed by Government agency were reduced by Rs. 1,25,267, as in the former year the Raiengarh timber was bought from Messrs. Winton and Braidwood ; as the troops did not winter at Chakráta the cost of collection of fuel was reduced by Rs. 4,871 ; the charges on account of furniture and stores for the Forest School were reduced, and this chiefly accounts for a smaller expenditure amounting to Rs. 5,011 under 'Stores, tools and plant'; there was a reduction of Rs. 3,131 under A.IX.(*a*), no consignment of boxwood having been sent to England. As a set-off against these savings, however, the expenditure under certain heads was increased, the principal items being the following, *viz.*, roads, Rs. 1,208; buildings, Rs. 1,754 ; demarcation, Rs. 1,039 ; plantations, Rs. 1,019; collection of river dues, Rs. 930 ; fire conservancy and working plans, Rs. 963; contingencies, Rs. 1,067 ; and deputation and special allowances, Rs. 1,229.

Deficit.—The deficit was Rs. 48,699 as compared with Rs. 1,35,902 during 1881-82. The apparent improvement is mainly due to the purchase of Messrs. Winton and

Braidwood's timber in 1881-82. The actual deficit of the past year should be reduced by Rs. 4,480, which sum was credited in the home accounts on account of boxwood sold in England ; but the expenditure connected with the Central Forest School forms a heavy charge against the revenue derivable from the forest divisions, and renders it very difficult to show a surplus. The charges on account of officers' salaries must always be high in this Circle, because it is necessary to have senior officers in charge of the forest divisions.

DEHRA DÚN.—The *revenue* obtained was less by Rs. 10,797 than that of the previous year, the principal items being as follows:—

	Rs.
Timber removed by purchasers	3,534
Bamboos ditto	1,168
Grazing	2,485
Minor produce removed by purchasers	558
Confiscated, drift and waif wood	2,648

It was not found possible to sell the trees of inferior kinds which had been marked for sale until the more valuable species had been removed, and at the close of the year Rs. 3,197 were still due for timber sold. The supply of bamboos is diminishing, and the Superintendent of Working Plans has been asked to propose measures for their protection. Fewer Gujars' buffaloes and cattle from the plains came to graze than during 1881 82, and the elephants with the ex-Amir of Kabul used private forests. Somla gum was not sold, as the trees required a rest, and the amount of timber confiscated was much less than during the previous year.

The *expenditure* was more by Rs. 13,440 than in 1881-82. There was an increase of Rs. 1,003 on roads and of Rs. 3,183 on buildings; an additional sum of Rs. 1,735 was spent under the various heads of 'improvement.' Refunds in connection with the timber-theft case at Tiuli caused an addition of Rs. 1,121 under that head ; and an increase of Rs. 728 under A. IX.(*c*) is chiefly accounted for by the sending of samples of wood to England. The increased charge of Rs. 5,189 on account of pay and travelling allowances of superior officers is chiefly due to the presence of the Working Plans Branch in this division for a part of the year.

The *surplus* revenue was Rs. 8,342, as compared with Rs. 32,579 in 1881-82. It is hoped that the revenue on timber can be kept up to Rs. 35,000 ; but a falling off in the revenue on bamboos and dead wood seems inevitable, as the amount of dead wood remaining in the forests has been much reduced, and the bamboos must be protected. The preparation of the working plan will cause a large increase of expenditure.

SAHÁRANPUR.—The *revenue* was less by Rs. 5,516 than that of the previous year. The felling of green timber has been almost entirely stopped on account of the denuded condition of the forests, and there is a reduction of Rs. 7,190 on this account ; there is a reduction of Rs. 967 in the revenue on bamboos, as some of the blocks were closed in connection with the fire conservancy arrangements ; the grazing dues were less by Rs. 896. On the other hand firewood and minor produce show increases of Rs. 596 and Rs. 558 respectively, and there is an increase of Rs. 1,778 on drift wood, and of Rs. 700 under the head of 'refunds' on account of the Khára rest-house.

The *expenditure* was more than that of 1881-82 by Rs. 5,288. There is an increase of Rs. 1,685 on buildings, caused mainly by the erection of a rest-house at Dholkand; a revision of the demarcation caused an extra charge of Rs. 1,288 ; fire protection shows an increase Rs. 756, the area having been increased ; the cost of roads and other works was Rs .896 more than during 1881-82 ; and the pay and travelling allowances of superior officers were increased by Rs. 975. On the other hand there is a reduction of Rs. 735 under the head of 'refunds'.

The *surplus* was Rs. 12,244, as compared with Rs. 23,048 in 1881-82. In the present condition of the forest of this division it is not possible to hope for a large surplus.

JAUNSÁR.—The *revenue* was less than that of the previous year by Rs. 12,658. The receipts on account of firewood and charcoal removed by Government agency were less by Rs. 12,702, as the troops did not winter at Chakráta, and there was a reduction under V.(*c*), 'Miscellaneous,' of Rs. 4,170, chiefly owing to the money paid in England for boxwood not having been credited in the accounts. On the other hand there is an increase of Rs. 3,318 on account of timber removed by Government agency, chiefly for the Public Works Department, and of Rs. 817 on account of chir trees removed by purchasers.

The *expenditure* was reduced by Rs. 10,036, as compared with that of 1881-82. The principal savings were as follows : Rs. 4,871 on account of firewood and charcoal removed by Government agency, the troops having left Chakráta for the winter ; Rs. 1,190 on roads and bridges, fewer new roads for carrying fuel having been required ; Rs. 4,635 under A. IX.(*c*) owing to a consignment of boxwood not having been sent to England, and of Rs. 1,080 on account of pay and travelling allowances of superior officers. On the other hand there was an increase of Rs. 1,137 on account of timber removed by Government agency, due to the preparation of scantlings for the Public Works Department.

The *deficit* was Rs. 8,976 as compared with Rs. 6,353 in 1881-82 ; but Rs. 4,480 of the year's deficit is apparent only, for this sum was paid in England on account of boxwood sold, though it could not be credited in the accounts ; and had the outstanding of Rs. 4,110 been recovered from the Commissariat

Department before the close of the year, the deficit would have been a very small one. The revenue of this division depends almost solely on the requirements of the Public Works and Commissariat Departments, and until the forests of the Dhâragadh can be worked, it is feared that there will be yearly deficit.

TONS.—The *revenue* was less than that of the previous year by Rs. 7,302. There was a reduction under the head of timber removed by Government agency amounting to Rs 6,145, due to fewer sleepers having been sold; there was a reduction of Rs. 2,379 on account of timber removed by purchasers, owing to fewer standing deodar and chir trees having been sold, but the Jumna river dues were increased by Rs. 1,490.

The *expenditure* was reduced by Rs. 1,26,629. Of this sum Rs. 1,26,365 under the head of timber removed by Government agency are fully accounted for by the purchase of the Ralengarh sleepers from Messrs. Winton and Braidwood in 1881-82. The charges for pay and travelling allowances of superior officers were reduced by Rs. 920, as Mr. Moir was on deputation in the Panjâb for a part of the year; but the expenditure on roads was increased by Rs. 964.

The *deficit* was Rs. 2,413 as compared with Rs. 1,21,740 in 1881-82. This division is entirely dependent on the sale of sleepers, and those purchased from Messrs. Winton and Braidwood have not turned out a good investment; part of them have been sold since the close of the financial year, and it is hoped that the remainder will be disposed of in 1883-84.

DIRECTION.—The *revenue* was less than that of 1881-82 by Rs. 332, and the *expenditure* was less by Rs. 5,208. The principal differences under the head of expenditure were the following, *viz.*, a smaller quantity of furniture and stores was required, and the saving on this account was Rs. 4,585; the expenditure on buildings was less by Rs. 2,597; and that on the nurseries in the compound by Rs. 854; the pay and travelling allowances of superior officers were less by Rs. 2,963, and the pay of the office establishment was less by Rs. 1,370. But there was an increase of Rs. 1,015 under the head of 'miscellaneous', due chiefly to advertisements of standing trees and the erection of a scaffolding for meteorological observations; there was also an increase of Rs. 4,793 on account of the Conservator's pay and allowances; an increase of Rs. 1,229 on account of special allowance to Mr. Duthie and the head gardener at Sahâranpur, formerly charged to B.I. (*b*); and of Rs. 541 under the head of 'Sundries.' The *deficit* was Rs. 57,896 as compared with Rs 63,436 during 1881-82. The charges include all expenses incurred on account of the Forest School.

Outstandings and liabilities.

67. The outstandings and liabilities on account of contractors and disbursers are shown in detail for each division in form No. 55. At the commencement of the year the outstandings were Rs. 11,919, while at the close of the year they were Rs. 16,001. The amount is chiefly made up of advances for works. The liabilities of the Department at the close of the year amounted to Rs. 5.

Outstandings of revenue.

68. The outstandings of revenue at the close of the year were as follows :—

				Rs.
From public departments	...	...	...	4,170
From other purchasers	...	...	...	4,038
		Total	...	8,208

CHAPTER VI.

General remarks.

Connection with civil officers.

69. The system prevailing in the Central and Oudh Circles, under which the divisional officer is in some respects subordinate to the Collector, has, as reported last year, been extended to the Sahâranpur division; but it has been considered necessary to revise the list of correspondence which is to pass through the Collector, and a proposal to this effect has been submitted through the Commissioner. Whether it will be desirable to continue the system or not will depend on whether a satisfactory arrangement can be made.

Forest legislation.

70. Three notifications regarding hunting, shooting, and fishing in closed reserved forests have been issued under the rules published in Government Notification No. 303 of the 28th February, 1880. The arrangements to be made in order to regulate and control the traffic on the Ganges and Jumna rivers are still under

consideration; Mr. Moir reports that the merchants working on the Jumna appear as a rule to be satisfied with the existing arrangements. Thirty timber marks have been registered up to the end of the year; the rafting passes are now issued by the forester in charge of the river. Passes were issued during the year for the undermentioned quantity of timber, *viz.*:—

	No. of pieces.	*Amount of raftage dues.*
		Rs.
From Government forests	1,855	63
From private forests	232,414	6,947
Total ...	234,269	7,010

The arrangements on the Jumna are much the same as those now in force on the Sutlej and Biás.

Legal documents.

71. Two additional model deeds have now been added to the list given last year. These are for carrying sleepers and for sawing sleepers.

Timber marks.

72. No further action has been taken in the matter of timber marks, but the question will again be taken up shortly.

Wood for Nordlinger's sections.

73. A collection of wood is about to be sent to Mr. Nordlinger with a view to his preparing sets of thin sections, such as are obtainable from him of the European timbers; the work has been undertaken by Mr. Fisher, who has collected 36 specimens out of the 50 which it is intended to send.

Specimens of wood.

74. Three sets of wood specimens of 11 different kinds were sent to the Home Department of the Government of India; two of them were to be forwarded to the Belgian and Italian Governments, and the third was to be kept in order to meet future demands.

Supply of seed.

75. 79lb. of seed of several kinds were collected and despatched to various places. The greater part of the seed was supplied to the Botanical Gardens at Saháranpur, but smaller quantities were sent to Baron Von Mueller at Melbourne, to Her Von Güttenberg at Trieste for the Austrian Government, and to the Superintendent of Afforestation at Hong-kong.

District forests.

76. As explained last year there are some tracts of land in Dehra Dún which are held by the Revenue officers, but the timber on which is still the property of the Forest Department. The money reported last year as due from Messrs. Lister and Co. has been realized, and a further sum of Rs. 5,000 has been received for the timber standing on the land between the Lister and Joli grants. The timber which remains will be valued during 1883-84.

Private forests in the Dun.

77. There are in the Dún considerable areas of forest land, chiefly stocked with sál, which are included within the boundaries of private estates and villages; that these forests are valuable and yield a large revenue to their proprietors is well known, and it seems reasonable that all private forest land should be assessed at the coming settlement.

Ajmere forests.

78. The Conservator visited Ajmere in March, and, after consulting with the Chief Commissioner and the Commissioner on various matters, embodied his recommendations in a memorandum which he submitted to the latter officer.

Hill States of the Panjab.

79. It has now been definitely decided that Government will not lease the Jubal forests, and the only State to be dealt with is Tirhoch ; nothing further can be done in this matter until the Rána comes of age, which will be in 1887.

Visit by the Inspector-General of Forests.

80. Dr. Schlich, Officiating Inspector-General, visited Dehra during March, and advised the Conservator on many subjects, chiefly in connection with the Forest School.

ANNUAL STATEMENTS

AND

APPENDICES.

ANNUAL FORM No. 49—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Area of reserved and leased forests, 1882-83.

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1882.		Added during the year.	Excluded or transferred to other heads.	Area on 1st March, 1883.		Number and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Dehra Dún division. Western range ...	Dehra Dún ...	Ambári	4,203	7	...	...	4,203	7		
		Chándpur	2,251	3	...	...	2,251	3		
		Dholkot	4,826	8	...	...	4,826	8		
		Jumna	9,213	14	30	...	9,243	14		
		Timli	19,723	31	...	19	19,704	31		
		Sherpur	13,935	22	...	13	13,922	22		
		Chandarbani	7,287	11	2	...	7,289	11		
Central range ...	Dehra Dún ...	Rámgarh	11,247	18	...	765	10,482	17		
		Búlawála	14,837	23	128	...	14,965	23		
		Nágsidh	14,725	23	1,792	...	16,517	26		
Eastern Siwálik range.	Dehra Dún ...	Kánsrau	19,630	31	1,306	...	20,936	33		
		Motichur	22,671	35	...	*55 188	22,428	35	*Vide* Notification No. 344, *North-Western Provinces Gazette* of 7th April, 1883.	*55 acres transferred to the Irrigation Department. The other changes are all due to a redistribution of the area.
Eastern Dún range ...	Dehra Dún ...	Málkot	5,790	9	...	...	5,790	9		
		Tháno	8,937	14	...	2,330	6,607	10		
		Tirsál	9,112	14	8,954	...	18,066	28		
		Sainkot	9,392	15	...	8,897	495	1		
		Total, Dehra Dún division ...	177,779	278	12,212	12,267	177,724	278		

Saháranpur division. Western range ...	Saháranpur ...		75,571	118	6,324	†19	81,876	128	Government of India Notification No. 160, dated 2nd February, 1883.	†Khára land transferred to Irrigation Department.
Central range ...			80,040	125	...	5,079	74,961	117		
Eastern range ...			35,051	55	...	‡263 1,245	33,543	52		‡Reduction on remeasurement (242 Patri, 21 Deopur). The other changes are all due to a redistribution of the area.
		Total, Saháranpur division ...	190,662	298	6,324	6,606	190,380	297		
Jaunsár division. Southern range ...	Dehra Dún ...	Kálsi	4,576	7	...	8	4,568	7	...	Transferred to strip on Jumna river.
		Strips on Jumna and Tons ...	165	...	257	...	422	1	...	Due to the increase of the width of the strip.
		Bairát	291	...	...	12	279	...	...	Due to the alteration of boundary of the Kua block.
		Amláwa	402	...	...	...	402	1		
	Tiri-Garhwál ...	Rawai	1,600	3	2,829	...	4,429	7	...	Corrections due to a rough survey.
		Jaunpur...	1,280	2	...	506	774	1	...	
Deoban range ...	Dehra Dún ...	Lokandi	6,975	11	...	...	6,975	11		
		Deoban	6,579	10	...	34	6,545	10	...	Due to alteration of boundary of Mohna block.
Báwar range ...	Dehra Dún ...	Ekra	5,313	8	...	...	5,313	8		
		Karámba	11,842	19	...	...	11,842	19		
		Konain	4,654	7	...	...	4,654	7		
		Riknár	6,450	10	...	...	6,450	10		
		Dhárogádh	13,518	21	22	...	13,540	21		
		Dhármigádh	10,010	16	3	...	10,013	16	...	Due to increase of width of strip on Jumna.
		Bástil	3,085	5	...	...	3,085	5	...	
		Total, Jaunsár division ...	76,740	119	3,111	560	79,291	124	...	

ANNUAL FORM No. 49—(Prescribed).

Forest Department, North-Western Provinces and Oudh, School Circle.

Area of reserved and leased forests, 1882-83—(concluded).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1882. Acres.	Area on 1st April, 1882. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 1st March, 1883. Acres.	Area on 1st March, 1883. Equivalent in square miles.	Number and date of notification of addition or transfer.	Remarks.
Tons division.										
Deogár range ...	Dehra Dún ...	Deogár	11,238	17	6	...	11,244	17	...	Due to increase of width of strip on Tons.
	Jághira ...	Raiengarh	2,560	4	1,992	...	4,552	7	...	Correct area taken from field sheets
		Dádi including Ori ...	960	2	422	...	1,382	2	...	Ditto ditto.
Deota range ...	Dehra Dún ...	Khunigádh	11,979	19	...	5	11,974	19	...	Transferred to heading "Bank of Tons."
	Tehri-Garhwál ...	Deota	5,087	8	...	150	4,937	8	...	Areas corrected on resurvey.
		Bámsu	2,223	3	100	...	2,323	4	...	
		Surás	997	2	17	...	1,014	2	...	
		Báshla	1,190	2	...	...	1,190	2	...	Area approximate.
		Bank of Tons	...	...	9	...	9	...	...	Five acres transferred from Hanol block to "Bank of Tons," and four acres due to increase of width of strip.
Lambátách range,	Tehri-Garhwál ...	Dátmir	2,560	4	...	...	2,560	4	...	Area approximate.
		Binksár	...	...	50	...	50	...	...	New tract.
		Lambatách	2,963	5	...	80	2,883	4	...	Areas corrected on re-survey.
		Kotigádh	4,112	6	...	144	3,968	6	...	
Basháhr ...	Basháhr ...	Basháhr	1,430	2	...	...	1,430	2	...	Area approximate.
		Total, Tons division ...	47,299	74	2,596	379	49,516	77	...	*Added.* Acres. New area ... 50; Re-measurement ... 4,501; 4,551. *Struck off.* Transfers 74; Boundary corrected 46; 120. Net increase ... 4,431. The other changes are all due to redistribution of area.
		Grand Total ...	492,480	769	24,243	19,812	496,911	776	...	

ANNUAL FORM No. 50—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Area of plantations, 1882-83.

Division.	Name of plantation.	On 1st *April*, 1882.		*Added during* 1882-83.		On 31st *March*, 1883.		Remarks.
		Area.	Cost.	Area.	Cost.	Total area.	Total cost.	
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
Dehra Dún	Phandawála — Sál	6	275	*1½	120	7½	395	* Due to a more accurate survey.
	Phandawála — Sissu	4	103	...	...	...	...	Struck off as failures.
	Phandawála — Tún	1	34	...	...	...	...	
	Landour Cantonment	90	3,392	...	...	...	...	This plantation will be omitted in future; for explanation see report.
	Rámgarh (sál and sain)	...	...	14	472	14	472	
	Lachiwála block	...	...	...	19	...	19	
	Total	101	3,804	15½	611	21½	886	
Saháranpur	Shámansur (khair and sissu)	6	254	...	18	6	272	
	Firozpur (chiefly sissu)	72	255	4½	†364	76½	619	† Including Rs. 221 erroneously charged to A.VIII. (*f*.)
	Rasulpur (khair and sissu)	5	17	...	...	5	17	
	Kálushahid (bamboos, mohwa, khair)	8	141	...	105	8	246	
	Ganjarban — Khair	20	65	...	...	...	...	Struck off as failure.
	Ganjarban — Sál	1	15	5½	107	6½	122	
	Bám (sál)	...	...	7	113	7	113	
	Total	112	747	17	707	109	1,389	
Jaunsár	Kathián (deodar)	229	2,947	...	5	229	2,952	
	Konain (ditto)	112	2,393	...	33	112	2,426	
	Kanásar (deodar, blue pine)	139	1,656	...	...	139	1,656	
	Bodyar (ditto and spruce)	373	4,138	...	32	378	4,170	
	Kurwa (oak)	15	163	...	...	15	163	
	Deothát (deodar, spruce, blue pine, kharsu, and chestnut)	165	2,465	...	420	165	2,885	
	Matkángra (morn)	51	699	...	...	51	699	
	Thona (spruce)	4	732	...	...	4	732	
	Lurli Cantonment block (oak, deodar, chír, and blue pine)	10	136	28	487	38	623	
	Soi Toli Cantonment block (oak, deodar)	...	...	9	132	9	132	
	Kanjátra (nursery)	...	...	½	14	½	14	
	Total	1,098	15,329	37½	‡1,123	1,135½	16,452	‡ Exclusive of Rs. 107 spent on coppicing, and Rs. 689 spent on the Chakrata garden, wrongly charged to A.VIII. (*d*.)
Tons	*Deota forest.* Plantings	9	263	19	250	36	513	
	Deota forest. Sowings	8		*Nil.*				
	Lambátách forest. Plantings	1	172	60	664	135	836	The area which failed in 1881 is being resown.
	Morách forest. Sowings	24		50				
	Dátmir and Saura. Sowings	8	99	...	32	8	131	
	Boxwood nurseries	...	...	...	20	...	20	
	Total	50	534	129	966	179	1,500	
	GRAND TOTAL	1,361	20,414	199	3,407	1,445	20,227	115 acres costing Rs. 3,594 struck off. Rs. 849 erroneously charged to A.VIII. (*d*) and omitted from this statement. Rs. 221 erroneously charged to A.VIII. (*f*) and included in this statement.

FORM No. 51—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Area of forest tracts protected from fire during the dry season of 1883 (*to accompany report for* 1882-83).

Division.	Forest tracts.	Up to 15th July, 1882. Area actually protected.	Up to 15th July, 1882. Total cost.	During dry season of 1883. Area attempted to be protected.	Failures.	Actually protected.	Amount expended.	Total cost up to 15th July, 1883.	Year in which protection commenced.	Remarks.
		Acres.	Rs	Acres	Acres.	Acres.	Rs.	Rs.		
Dehra Dún ...	Búlawála ...	2,938	11,299	14,503	...	14,503	1,180	12,479	1872	
	Rámgarh ...	6,512	1,692	6,332	58	6,274	704	2,396	1878	
	Tháno ...	4,454	3,606	5,180	6	5,174	477	4,083	1877	
	Chandrabani ...	4,717	1,979	4,902	1,062	3,840	433	2,412	1878	
	Kánsrau ... Nichla Song ...	1,427	2,234	1,600	...	1,600	747	2,981	1878	
	Kánsrau ... Bahera... ...	8,038		8,510	122	8,388			1881	
	Total ...	35,086	20,810	41,027	1,248	39,779	3,541	24,351		
Sahárunpur ...	Lakarkot, Ganjarban and Rasúlpur ...	8,504	3,135	8,504	15	8,489	936	4,071	1879	
	Dholkhand, Malawála, portions of Bám and Andheri ...	10,080	1,077	10,080	...	10,080	380	1,457	1880	
	Chillawála, Gáj, portions of Andheri, Bám and Betban ...	15,907	465	15,907	225	15,682	411	876	1882	
	Kálushéhid ...	1,000	668	1,000	15	985	260	928	1879	
	Patri plantation ...	35	158	1,000	...	1,000	389	547	1880	
	Daula ...	600	519	600	...	600	171	690	1879	
	Sendhli ...	...	...	500	30	470	217	217	1883	
	Bánlawála ...	...	...	500	...	500	84	84	1883	
	Total ...	36,126	6,022	38,091	285	37,806	2,848	8,870		
Jaunsár ...	*Southern range.*									
	Kálsi, Bairát, and Amláwa ...	2,485	309	2,500	50	2,450	8	317	1872	
	Cantonment blocks, Forest garden ...	630	97	630	11	619	40	137	1880	
	Rawai and Jaunpur ...	2,880	111	2,880	200	2,680	13	124	1872	
	Deoban range.									
	Lokandi ...	5,132	502	5,132	19	5,113	61	563	1869	
	Deoban ...	5,775	392	5,775	60	5,715	82	474	1872	
	Ekra ...	2,670	519	2,670	...	2,670	77	596	1872	
	Konain ...	3,780		3,780	...	3,780				
	Karámba ...	3,878		3,878	...	3,878				
	Báwar range.									
	Riknár ...	4,600	1,062	4,600	...	4,600	188	1,250	1872	
	Dhárágádh ...	4,000		4,000	...	4,000				
	Dharmigádh ...	1,200		1,200	...	1,200				
	Bástil ...	1,269		1,269	...	1,269				
	Total ...	38,299	2,992	38,314	340	37,974	469	3,461		
Tons ...	Dátmir ...	2,560	148	2,560	...	2,560	12	160	1872	
	Khunigádh, Molta and Chátra ...	3,226	799	3,257	600	2,657	243	1,042	1872	
	Hanol ...			1,120	...	1,120	...	...	1879	
	Deogár, including Raiengarh and Dádi ...	8,373	830	7,916	7	7,909	87	917	1872, 1879	
	Deota, including Bámsu, Surás, Báshla, Lambátách and Kotigádh.	11,105	1,542	16,365	482	15,883	437	1,979	1872	
	Binksár ...	...	...	50		50	4	4	1879	
	Basháhr ...	1,418	18	1,418	...	1,418	18	36	1881	
	Total ...	26,682	3,337	32,686	1,089	31,597	801	4,138		
	GRAND TOTAL ...	136,193	33,161	150,118	2,962	147,156	7,659	40,820		

Remarks.		Rs.
Charged in previous year...		33,161
Ditto	1882-83...	4,250
Ditto	1883-84...	3,409
Total ...		40,820

The total last year was erroneously shown to be 136,139 acres costing Rs. 33,162 instead of 136,193 acres costing Rs. 33,161.

ANNUAL FORM No. 52—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Prosecutions for breaches of Forest Rules during 1882-83.

Forest division and civil district.	Cases pending from 1881-82.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Dehra Dún District.														
Dehra Dún division	...	...	3	...	3	6	6	3	4	1	11	4	15	2
Jaunsar division	...	...	1	...	...	1	1	1	4	...	...	1	4	...
Tons division	...	...	2	...	1	3	3	...	...	2	5	2	5	1
Saháranpur District.														
Saháranpur division	...	...	2	2	...	4	4	4	6	...	1	4	7	...
Native States.														
Jaunsár division	*3	...	2	...	1	3	6	3	3	...	...	3	3	...
Tons division	1	1	...	...	...	1	2	1	2	1	4	2	6	...
Total ...	4	1	10	2	5	18	22	12	19	4	21	16	40	3

* Withdrawn.

ANNUAL FORM No. 53—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Summary of revenue of the different divisions during 1882-83.

Budget-head receipts.	Direction.	Dehra Dún Division.	Saháranpur Division.	Jaunsár Division.	Tons Division.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency:—						
(a) Timber	...	...	...	7,187 15 2	85,346 7 6	92,534 6 8
(b) Firewood and charcoal	...	...	...	20,610 11 10	...	20,610 11 10
(c) Bamboos	...	...	...	...	...	...
(d) Sandal-wood	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...
II.—Timber and other produce from the forests by consumers or purchasers:—						
(a) Timber	...	32,878 4 8	1,315 8 4	1,498 5 9	3,242 10 0	38,934 12 9
(b) Firewood and charcoal	...	2,772 1 0	5,582 13 10	315 8 1	...	8,670 6 11
(c) Bamboos...	...	4,133 13 3	2,561 3 1	400 14 0	...	7,095 14 4
(d) Grazing and fodder grass	...	7,341 4 5	13,026 6 11	1,382 6 0	307 10 0	22,057 11 10
(e) Other minor produce	...	4,917 2 6	6,297 15 1	326 14 0	...	11,541 15 7
III.—Confiscated, drift and waif wood	...	947 14 0	3,124 8 0	16 14 0	154 0 0	4,243 4 0
IV.—Revenue from forests not managed by Government:—						
(a) Duty on foreign timber and other forest produce	...	...	...	...	7,010 12 11	7,010 12 11
(b) Revenue from shared and private forests	...	...	...	...	...	...
V.—Miscellaneous:—						
(a) Fines and forfeitures	...	...	58 14 8	71 0 0	60 0 0	185 14 8
(b) Refunds	489 15 1	1 0 10	700 0 0	6 6 0	...	1,197 5 11
(c) Other sources	16 13 0	279 2 6	57 0 0	207 4 3	326 9 5	886 13 3
Total receipts ...	506 12 1	53,270 11 2	32,780 5 11	32,024 3 1	96,448 2 5	2,14,970 2 8

CALCUTTA:
The 4th June, 1883.

G. J. VAN SOMEREN, MAJOR.
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 53—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Summary of expenditure of the different divisions during 1882-83.

Budget heads.	Direction.	Dehra Dún Division.	Sháranpur Division.	Jaunsár Division.	Tons Division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency :—						
(a) Timber	...	9 2 0	...	5,369 11 9	74,491 9 0	79,870 6 9
(b) Firewood and charcoal	...	...	...	17,434 5 2	...	17,434 5 2
(c) Bamboos	...	...	...	...	...	...
(d) Sandal-wood	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers,	...	952 11 5	5,160 2 1	...	...	6,112 13 6
III.—Confiscated, drift and waif wood	...	158 1 3	15 12 0	...	...	173 13 3
IV.—Revenue from forests not managed by Government :—						
(a) Duty on foreign timber and other forest produce	...	...	...	...	930 0 0	930 0 0
(b) Revenue from shared and private forests	...	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government	...	1,851 0 0	...	...	6,550 0 0	8,501 0 0
VI.—Live stock, stores, tools and plant :—						
(a) Purchase of cattle	...	...	...	...	...	...
(b) Feed and keep of cattle	598 11 8	925 3 11	610 9 11	...	...	2,134 9 6
(c) Stores, tools and plant	855 11 0	1,059 10 9	196 11 9	338 9 0	162 5 0	2,612 15 6
VII.—Communications and buildings :—						
(a) Roads and bridges	73 5 9	3,024 3 4	505 15 1	3,167 6 7	2,100 7 4	8,871 6 1
(b) Buildings	9,176 12 6	4,361 11 9	1,943 10 5	1,968 4 4	741 14 1	18,192 5 1
(c) Other works	196 12 9	32 15 5	541 2 3	...	14 12 6	785 10 11
VIII.—Demarcation, improvement and extension of forests :—						
(a) Demarcation	...	1,835 6 5	1,383 9 7	339 1 0	19 7 0	3,577 8 0
(b) Compensation for land and rights	...	84 7 6	45 0 0	...	5 0 0	134 7 6
(c) Surveys and working plans	...	451 13 11	...	7 9 0	...	459 6 11
(d) Plantations	...	661 1 9	488 9 0	1,918 15 2	966 4 3	4,034 14 2
(e) Protection from fire	...	4,306 14 0	2,678 2 6	484 3 5	137 7 0	7,606 10 11
(f) Other works	729 8 4	1,573 3 11	462 12 6	51 9 0	341 1 10	3,158 8 7
IX.—Miscellaneous :—						
(a) Refunds	...	1,122 11 1	175 8 0	...	...	1,298 3 1
(b) Law charges	...	341 0 0	2 12 0	...	...	343 12 0
(c) Other charges	3,890 10 4	1,552 2 1	71 5 0	503 9 9	166 13 4	6,181 8 6
Total A.—Conservancy and Works	15,521 8 4	24,303 13 6	14,281 10 1	31,583 4 2	86,727 1 4	1,72,417 5 5

ANNUAL FORM No. 53—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Summary of expenditure of the different divisions, 1882-83—(concluded).

Budget heads.	Direction.	Dehra Dún Division.	Saháranpur Division.	Jaunsár Division.	Tons Division.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Brought forward, Total A.—Conservancy and Works	15,521 8 4	24,393 13 6	14,281 10 1	31,583 4 2	86,727 1 4	1,72,417 5 5
B.—ESTABLISHMENTS.						
I.—Salaries :—						
(*a*) Conservators	15,483 5 4	...	...	...	...	15,483 5 4
(*b*) Superior officers	15,298 11 0	12,482 12 5	2,031 11 11	4,659 0 0	7,622 7 6	42,145 10 10
(*c*) Subordinate Forest and Depôt Establishments	...	3,127 13 7	1,010 14 9	2,297 2 4	2,003 1 6	8,439 0 2
(*d*) Office Establishments	2,530 0 0	1,417 0 0	1,065 0 0	1,045 0 0	720 0 0	6,777 0 0
(*e*) Deputation and Special Allowances	1,814 9 8	...	...	...	...	1,814 9 8
II.—Travelling allowances :—						
(*a*) Conservators	2,400 0 0	...	...	...	...	2,400 0 0
(*b*) Superior Officers	2,832 7 9	2,476 14 0	981 7 2	932 8 0	1,228 1 4	8,451 6 3
(*c*) Subordinate Forest and Depôt Establishments	...	8 15 6	3 2 0	...	11 3 0	23 4 6
(*d*) Office Establishments	...	54 2 10	281 1 8	150 5 11	143 2 2	628 12 7
III.—Contingencies :—						
(*a*) Stationery	28 14 0	71 2 0	61 2 9	41 0 0	51 14 0	254 0 9
(*b*) Carriage of tents and records	205 1 2	211 10 9	217 2 3	89 5 0	135 13 6	859 1 3
(*c*) Rents, rates and taxes	163 14 0	330 0 0	268 5 1	0 12 0	...	762 15 1
(*d*) Pay of police guards	530 2 11	...	...	...	...	530 2 11
(*e*) Official postage	218 2 10	88 9 6	128 11 0	67 4 6	74 2 0	576 13 10
(*f*) Sundries	1,376 7 2	356 8 3	85 12 11	142 15 9	144 2 6	2,105 14 7
Total B.—Establishments ...	42,881 12 5	20,625 8 10	6,194 7 6	9,416 5 6	12,133 15 6	91,252 1 9
GRAND TOTAL OF EXPENDITURE ...	58,403 4 9	44,929 6 4	20,476 1 7	40,999 9 8	98,861 0 10	2,63,669 7 2

CALCUTTA,
The 4th June 1883.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 54—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Account Current for the year 1882-83.

Heads of accounts.	Rs. a. p.	Rs. a. p.
To Cash balance on 1st April, 1882	...	4,148 11 9
„ Revenue as per annual summary (Form No. 53)	...	2,14,970 2 8
„ Service funds—		
Uncovenanted Service Family Pension Fund, Bengal ...	1,387 7 6	
General Family Pension Fund, Bengal	105 0 0	
Military Fund, Madras	358 10 6	
		1,851 2 0
„ Deposits	...	2,090 0 0
„ Forest Cash Remittances (Local)—		
Remittances from State Treasuries	2,79,861 2 8	
Inter-divisional transfers	100 0 0	
		2,79,961 2 8
„ Advances recoverable	...	1,55,686 2 7
„ Suspense	...	95 0 0
„ Account current, Other Governments—		
Government of India	926 3 9	
Ditto of Bengal	200 0 0	
Ditto of Central Provinces	125 0 0	
Ditto of Panjáb	10 3 0	
Ditto of Bombay	1 4 0	
		1,262 10 9
„ Inter-departmental transfers :—		
Public Works Department, Other Branches ...	...	1,437 2 5
„ Civil Department—		
Mathematical Instrument Department	229 11 0	
Miscellaneous	25 0 0	254 11 0
Total ...	...	6,61,756 13 10

Heads of accounts.	Rs. a. p.	Rs. a. p.
By Expenditure as per annual summary (Form No. 53) ...	...	2,63,669 7 2
„ Deposits	...	1,250 0 0
„ Forest cash remittances (Local)—		
Remittances to State Treasuries	1,69,178 8 11	
Inter-divisional transfers	1,625 8 6	
		1,10,804 1 5
„ Advances recoverable	...	1,59,762 7 6
„ Suspense	...	95 0 0
„ Account current, Other Governments—		
Government of India	5,937 14 7	
Ditto of Bengal	4,905 0 6	
Ditto of Central Provinces	3,666 6 0	
Ditto of Panjáb	1,496 15 3	
Ditto of British Burma	4,898 12 4	
Ditto of Assam	2,234 10 0	
		22,239 8 8
„ Inter-departmental transfers—		
Public Works Department, Rajputna and Malwa State Railway.	76,668 12 0	
Other Branches	8,708 0 5	
		85,376 12 5
„ Military Department, Bengal	...	18,163 9 10
„ Civil Department—		
Rewards for passing examination	180 0 0	
Mathematical Instrument Department	18 0 0	
		198 0 0
„ Cash balance on 31st March, 1883	...	197 14 10
Total ...	...	6,61,756 13 10

CALCUTTA,
The 4th June, 1883.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 55—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Outstandings and liabilities on account of contractors and disbursers for 1882-83.

Division.	Department debtor.			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (outstandings).	By Department (liabilities.)	
		Rs. a. p.	Rs. a. p.	Rs a p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	...	25,818 9 5	25,818 9 5	577 11 8	26,498 12 3	27,076 7 11	1,262 15 6	5 1 0	
Dehra Dún...	...	11,654 14 0	11,654 14 0	938 1 2	13,348 13 5	14,286 14 7	2,632 0 7	...	
Saháranpur	...	8,940 7 1	8,940 7 1	290 11 11	9,908 11 10	10,199 7 9	1,259 0 8	...	
Jaunsár ...	...	49,792 12 7	49,792 12 7	4,886 0 0	49,316 3 3	54,202 3 3	4,409 6 8	...	
Tons ...	...	59 479 7 6	59,479 7 6	5,226 13 8	60,689 14 9	65,916 12 5	6,437 4 11	...	
Total ...	...	1,55,686 2 7	1,55,686 2 7	11,919 6 5	1,59,762 7 6	1,71,681 13 11	16,000 12 4	5 1 0	

CALCUTTA:
The 4th June, 1883.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 56—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Revenue received and outstandings on account of revenue during 1882-83.

Division.	Particular.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a p.	Rs. a. p.	
Direction ...	Sale of timber and other produce	...	506 12 1	506 12 1	506 12 1	...	(a) Includes Rs. 3,066-10-0 written off. *Vide* G. O No. 614, dated 13th September, 1883.
Dehra Dún ...	Ditto ditto	6,017 2 0	54,018 9 4	60,035 11 4	(a) 56,337 5 2	3,698 6 2	(b) Includes Rs. 1,832-8-10 written off. *Vide* G. O. No. 2, dated 2nd January, 1883; No. 80, dated 21st January, 1883; and No. 112, dated 2nd February, 1883.
Saháranpur ...	Ditto ditto	3,392 14 6	31,500 0 3	34,892 14 9	(b) 34,552 14 9	340 0 0	(c) Amount realized :—
Jaunsár ...	Ditto ditto	337 14 3	35,856 4 10	36,194 3 1	32,024 3 1	4,170 0 0	
Tons ...	Ditto ditto	0 12 0	96,447 6 5	96,448 2 5	96,448 2 5	...	
	Total ...	9,748 10 9	2,18,229 0 11	2,28,077 11 8	(c) 2,19,869 5 6	(d) 8,208 6 2	

	Rs. a. p.
As per form No 53. ...	2,14,970 2 8
Amount written off :—	
As per G. O. quoted above	4,899 2 10
Total ...	2,19,869 5 6
(d) From Public Departments	4,170 0 0
From other purchasers ...	4,038 6 2
Total ...	8,208 6 2

CALCUTTA,
The 4th June, 1883.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 57—(Prescribed).

Forest Department, North-Western Provinces and Oudh, School Circle.

Financial results of the year 1882-83.

Division.	*Timber and other produce removed from the forests by Government agency.*		*Other revenue.*		*Formation, protection, and improvement of forests.*	*Total.*		Remarks.
	Receipts.	Charges	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction ...	...	37,247	507	6,855	14,301	507	58,403	
Dehra Dún ...	...	9	53,271	6,408	38,512	53,271	44,929	
Sahárunpur ...	...	...	32,720	9,330	11,146	32,720	20,476	
Jaunsár ...	27,799	27,176	4,225	1,113	12,709	32,024	41,000	
Tons ...	85,346	79,924	11,102	1,863	17,074	96,448	98,861	
Total ...	1,13,145	1,44,358	1,01,825	25,569	93,742	2,14,970	2,63,669	

FORM No. 58—(Suggested).

Forest Department, North-Western Provinces and Oudh, School Circle.

Trees felled by Government agency during the year 1882-83. (*Selection fellings.*)

Division.	*Trees felled.*	
	Description.	Number.
Dehra Dún ...	Sál	46
Sahárunpur ...	*Nil.*	
Jaunsár	Deodar	132
	Oak	331
	Fir	539
	Walnut	2
	Maple	4
	Total ...	1,008
Tons	Deodar	638
	Chír (*P. longifolia*) ...	206
	Total ...	844
	Grand Total ...	1,898
	Abstract of the Circle.	
	Sál	46
	Deodar	770
	Chír (*P. longifolia*) ...	206
	Oak	331
	Fir	539
	Walnut	2
	Maple	4
	Total ...	1,898

Remarks.

FORM No. 59—(SUGGESTED).

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, SCHOOL CIRCLE.

Outturn of timber and other produce cut and collected by Government agency during the year 1882-83.

Division.	Produce cut and collected. How obtained.	Description.	Number or quantity.	Cubic feet.	Remarks.
Dehra Dún ...	Cut from the forests.	Sál pieces No.	46	1,296	
		Sál saplings „	241	482	
		Miscellaneous saplings „	9	18	
	Confiscated ...	Ditto pieces „	577	1,439	
	Drift	Ditto „	26	90	
		Total ...	...	3,325	Total of Dehra Dún division.
Saháranpur ...	Drift ...	Miscellaneous pieces No.	21	47	Total of Saháranpur division.
		Firewood (400 c.ft.) ...	200	Mds.	
Jaunsár ...	Selection fellings	Deodar scantlings No. ...	5,104	5,745	
		Ditto spars „ ...	172	559	
		Rai scantlings „ ...	1,419	1,439	
		Oak do. „ ...	8	8	
	Confiscated ...	Sissu tree „ ...	1	17	
	Drift	Deodar logs „ ...	2	30	
		Total timber ...	...	7,798	
	Selection fellings	Oak fuel (18,519 sq. ft.	8,052	Mds.	
		Fir fuel (46,727 do.) ...	13,350	...	
	Fallen trees ...	Ditto (10,986 do.) ...	3,133	...	Total of Jaunsár division.
	...	Oak fuel (959 do.) ...	417	...	
		Ditto (7,133 do.) ...	*3,101	...	*The result of coppicing 2½ acres.
	Drift	Chir fuel (12 do.) ...	*4	...	
	...	Charcoal (3,330 c ft.) ...	*1,110	...	
Tons ...	Selection fellings	Metre gauge deodar sleepers No. ...	48,524	65,393	
		Chir scantling „ ...	2,415	12,002	
		Total ...	50,939	77,395	Total of Tons division.
		Abstract of the Circle.			
		Sál pieces No....	46	1,296	
		Sál saplings „ ...	241	482	
		Deodar metre gauge sleepers No....	48,524	65,393	
		Do. scantlings „ ...	5,104	5,745	
		Do. spars „ ...	172	559	
		Deodar logs „ ...	2	30	
		Rai scantlings „ ...	1,419	1,439	
		Chir do. „ ...	2,415	12,002	
		Oak do. „ ...	8	8	
		Sissu tree „ ...	1	17	
		Miscellaneous „ ...	624	1,576	
		Do. saplings „ ...	9	18	
		Total timber ...	...	88,565	Total for the Circle.
		Firewood (84,716 c.ft.).	28,257	Mds.	
		Charcoal (3,330 c.ft.),	1,110	Mds.	

FORM No. 60—(SUGGESTED).

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, SCHOOL CIRCLE.

Timber and other produce received from Forests in Sale Depôts during the year 1882-83.

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks.
Dehra Dún ...	...	...	...	...	
Saháranpur ...	...	...	...	...	
Jaunsár ...	Chakráta ...	Deodar scantlings No. ...	1,217	2,432	
		Do. spars „ ...	172	559	
		Fir scantlings „ ...	1,415	1,435	
		Firewood oak Mds. ...	9,206	...	
		Ditto fir „ ...	19,085	...	
		Ditto oak fagots „ ...	170	...	
		Charcoal „ ...	496	...	
Tons ...	Delhi ...	Broad gauge deodar sleepers (No.)	1,944	6,750	
		Metre gauge deodar sleepers (No.)	41,556	55,408	
		Abstract of the Circle.			
		Deodar scantlings (No.),	1,217	2,432	
		Ditto sleepers „ ...	43,500	62,158	
		Ditto spars „ ...	172	559	
		Fir scantlings „ ...	1,415	1,435	
		Total timber ...	...	66,584	Total of the Circle.
		Firewood (Mds.) ...	28,461	...	
		Charcoal „ ...	496	...	

FORM No. 61—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Sales of timber and other produce out and collected by Government agency during the year 1882-83.

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		SOLD FROM DEPÔTS.			
Dehra Dún...	*Nil.*	*Nil.*			
Sahâranpur,	*Nil.*	*Nil.*			
Jaunsár ...	Chakráta ...	Deodar scantlings No. ...	1,697	3,982	
		Fir and pine ditto „ ...	937	786	
		Sissu ditto „ ...	2	2	
		Firewood, oak Mds. ...	2,395	...	
		Ditto fir „ ...	22,510	...	
		Ditto oak fagots „ ...	11	...	
		Charcoal „ ...	181	...	
Tons ...	Delhi ...	Broad gauge deodar sleepers No. ...	1,584	5,507	
		Metre gauge ditto „ ...	42,471	56,628	
		SOLD LOCALLY.			
Dehra Dún...	Various ...	Confiscated karis No. ...	318	781	
		Ditto tors and ballis, &c. „ ...	285	748	
Saharanpur,	Ditto ...	Miscellaneous pieces „ ...	21	47	
		Firewood Mds. ...	200	...	
Jaunsár ...	Ditto ...	Deodar beams No. ...	2	17	
		Ditto logs „ ...	2	30	
		Sissu-tree „ ...	1	17	
		Oak pieces „ ...	8	8	
		Firewood, oak Mds. ...	2,345	...	
		Drift firewood „ ...	24	...	
		Charcoal „ ...	620	...	
Tons ...	Ditto ...	Broad gauge deodar sleepers No. ...	403	1,399	
		Metre gauge ditto „ ...	9	12	
		Drift timber, miscellaneous c.ft. ...	...	840	
		Abstract of the Circle.			
		SOLD FROM DEPÔT.			
		Deodar scantlings No. ...	1,697	3,982	
		Fir and pine ditto „ ...	937	786	
		Sissu ditto „ ...	2	2	
		Broad gauge deodar sleepers „ ...	1,584	5,507	
		Metre gauge ditto „ ...	42,471	56,628	
		Total timber ...	...	66,905	Total sold from depôt.
		Firewood Mds. ...	31,916	...	
		Charcoal „ ...	181	...	
		SOLD LOCALLY.			
		Deodar logs No. ...	2	30	
		Ditto beams „ ...	2	17	
		Confiscated karis „ ...	318	781	
		Ditto tors and ballis „ ...	314	805	
		Sissu-tree „ ...	1	17	
		Deodar sleepers „ ...	412	1,411	
		Drift timber, miscellaneous c.ft. ...	...	840	
		Total timber ...	...	3,899	Total sold to locally.
		Firewood Mds. ...	2,569	...	
		Charcoal „ ...	620	...	

ANNUAL FORM No. 62.—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1882-83.

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Balance at commencement of the year.					
Dehra Dún division		Nil.			
Sahárunpur ditto		Nil.			
Jaunsár division, Deodar timber	No. ...	6,571	14,849		
Rai ditto	„ ...	1,410	1,161		
Sissu planks	„ ...	4	4		
Kail karis	„ ...	23	29		
				...	16,043
Oak firewood	Mds. ...	333			
Fir ditto	„ ...	4,800	Mds.	5,133	
Tons division ... Broad gauge deodar sleepers	No.	223	774		
Metre gauge ditto	„	1,528	2,037	...	2,811
Total balance ... Timber ...	...	...	...	...	18,854
Firewood	Mds. ...	...	...	5,133	
Received from the forests in depôts.					
Deodar scantlings	No. ...	1,217	2,432		
Broad gauge deodar sleepers	„ ...	1,944	6,750		
Metre gauge ditto	„ ...	41,556	55,408		
Deodar spars	„ ...	172	559		
Fir scantlings	„ ...	1,415	1,435		
				...	66,584
Firewood oak	Mds. ...	9,206			
Ditto fir	„ ...	19,085			
Ditto oak fagots	„ ...	170	Mds.	28,461	
Charcoal	„ ...	496	Mds.	496	

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No or quantity.	Total of each head. Cubic feet.
Removed by purchasers from depôt.					
Deodar scantlings	No. ...	1,697	3,982		
Fir and pine ditto	„ ...	937	786		
Sissu ditto	„ ...	2	2		
Broad gauge deodar sleepers	„ ...	1,584	5,507		
Metre gauge ditto	„ ...	42,471	56,628		
				...	66,905
Firewood, oak	Mds ...	9,395			
Ditto fir	„ ...	22,510			
Ditto oak fagots	„ ...	11	Mds.		
				31,916	
Charcoal	Mds. ...	181	Mds.		
				181	
Sold locally.					
Deodar logs	No. ...	2	30		
Ditto beams	„ ...	2	17		
Confiscated karis	„ ...	318	781		
Ditto tors and ballis	„ ...	314	803		
Sissu tree	„ ...	1	17		
Deodar sleepers	„ ...	412	1,411		
Drift timber (miscellaneous) cubic feet	...	...	840		
				...	3,899
Firewood ...	Mds. ...	2,569	Mds.		
				2,569	
Charcoal ...	„ ...	620	Mds.		
				620	
Transferred to the Executive Engineer, Military Works, Chakráta.					
Fir timber	No. ...	1,092	980	...	980

Received from the forests and sold locally.						
Deodar logs	No.	...	2	30		
Ditto beams	"	...	2	17		
Confiscated karis	"	...	318	781		
Ditto tors and ballis	"	...	314	803		
Sissu tree	"	...	1	17		
Deodar sleepers	"	...	412	1,411		
Drift timber (miscellaneous)	Cubic feet	...	...	840	...	3,899
Firewood	Mds.	...	2,569	Mds.	2,569	
Charcoal	"	...	620	Mds.	620	
Received from the forests and used by Department.						
Sál trees	No.	...	46	1,296		
Sál saplings	"	...	241	482		
Miscellaneous saplings	"	...	9	18	...	1,796
Grand Total ... Timber	...	...	...	...	...	91,133
Grand Total ... Firewood	Mds.	...	...	...	36,163	
Grand Total ... Charcoal	"	...	...	...	1,116	

Used by Department (not brought to depôt).						
Sál trees	No.	...	46	1,296		
Sál saplings	"	...	241	482		
Miscellaneous ditto	"	...	9	18	...	1,796
Used by Department from depôt.						
Deodar timber	No.	...	7	8		
Fir ditto	"	...	2	3	...	11
Lost in restacking.						
Firewood fir ...	Mds.	...	31	Mds	31	
Balance in hand at close of the year.						
Dehra Dún		...	Nil			
Saháranpur		...	Nil			
Jaunsár Division.						
Deodar timber	No.	...	6,346	13,850		
Fir and pine ditto	"	...	817	856		
Sissu planks	"	...	2	2		
Firewood oak	Mds.	...	144			
Ditto fir	"	...	1,344			
Ditto oak fagots	"	...	159			
Charcoal	"	...	315			
Tons Division.						
Broad gauge deodar sleepers	No.	...	383	2,017		
Metre gauge ditto	"	...	613	817		
Total balance ... Timber	...	...	...	...	...	
Total balance ... Firewood	Mds.	...	...	...	1,647	17,542
Total balance ... Charcoal	"	...	...	...	315	
Grand Total ... Timber	...	...	...	...	...	91,133
Grand Total ... Firewood	Mds.	...	...	...	36,163	
Grand Total ... Charcoal	"	...	...	...	1,116	

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1882-83.

Division.	Produce removed. Description.		Number or quantity.	Amount of revenue.	Amount actually realized during the year.
				Rs.	Rs.
Dehra Dún ...	Sál trees	No.	2,922	7,488	4,073
	Sál scantlings	,,	1,137	1,331	1,241
	Sain trees	,,	821	2,103	1,421
	Sain scantlings	,,	9,221	7,360	7,360
	Chír trees	,,	277	277	277
	Chír scantlings	,,	640	86	86
	Pieces of timber of miscellaneous kinds	,,	7,470	2,341	1,931
	Lease of standing and fallen dry wood ...		...	5,335	5,335
	Timber from district forests		...	5,000	5,000
	Sál tors and poles	No.	3,240	2,163	2,163
	Poles and saplings of miscellaneous kinds	,,	1,674	349	349
	Total timber ...		...	33,833	30,136
	Firewood (maunds)		17,066	1,297	1,297
	Lease of fallen firewood (maunds) ...		33,000	1,375	1,375
	Charcoal (maunds)		555	100	100
	Total firewood and charcoal ...		.	2,772	2,772
	Bamboos (scores)		23,364	2,684	2,684
	Lease of bamboos (scores)		29,000	1,450	1,450
	Total bamboos ...		..	4,134	4,134
	Grazing (animals)	No.	31,526	7,329	7,329
	Fodder grass, headloads ...	,,	387	12	12
	Total grazing		...	7,341	7,341
	Pula grass, cartloads ...	No.	518	259	259
	Lease of limestones		...	1,185	1,185
	Ditto hides		...	280	280
	Ditto honey and wax		...	55	55
	Ditto bajri		...	50	50
	Other minor produce. Leases		...	2,065	2,065
	Other minor produce. Sales of passes and tickets.		...	1,023	1,023
	Total minor produce ...		...	4,917	4,917
	Grand Total ...		...	52,897	49,300
Sahárunpur ...	Sál scantlings	No.	55	60	60
	Sál pieces	,,	10	15	15
	Sain and jáman pieces ...	,,	67	49	49
	Sándhan and sissu ploughs ...	,,	331	125	125
	Miscellaneous pieces ...	,,	105	20	20
	Sál tors and poles	,,	216	191	191
	Khair chursus	,,	295	265	265
	Miscellaneous poles	,,	1,072	263	263
	Miscellaneous saplings ...	,,	10,233	327	327
	Total timber ...		...	1,315	1,315
	Firewood (maunds)		1,33,320	5,725	5,555
	Charcoal (do.)		224	28	28
	Total firewood and charcoal ...		...	5,753	5,583
	Bamboos (scores)		20,495	2,561	2,561
	Total bamboos ...		...	2,561	2,561
	Grazing (animals)	No.	89,969	12,949	12,949
	Fodder grass		...	77	77
	Total grazing ...		...	13,026	13,026
	Carried over ...		...	22,555	22,485

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Timber and other produce cut, collected, and removed from the forest by consumers or purchasers, including pasture, during the year 1882-83—(concluded).

Division.	Produce removed. Description.		Number or quantity.	Amount of revenue.	Amount actually realized during the year.
				Rs.	Rs.
	Brought forward ...		...	22,555	22,485
Saháranpur.—(*concluded.*)	Grass		...	4,937	4,817
	Leaves		...	1,137	1,087
	Fruit		...	26	26
	Stones		...	82	82
	Gum		...	59	59
	Creeper		...	10	10
	Honey and wax		...	158	158
	Lac		...	20	20
	Miscellaneous		...	39	39
	Total minor produce ...		...	6,468	6,298
	Grand Total ...		...	29,193	28,783
Jaunsár ...	Chir trees ...	No.	250	1,062	1,062
	Miscellaneous trees ...	"	14	38	38
	Bakli scantlings ...	"	800	300	300
	Miscellaneous ballis, tool-handles	"	1,131	98	98
	Total timber ...		.	1,498	1,498
	Firewood (maunds)		5,847	308	308
	Charcoal (do.)		39	8	8
	Total firewood and charcoal ...		...	316	316
	Bamboos (scores)		4	1	1
	Ringals (do.)		19,760	380	380
	Bamboos leased (Kalsi)		...	20	20
	Total bamboos ...		...	401	401
	Grazing dues		...	1,382	1,382
	Total grazing dues ...		...	1,382	1,382
	Other minor produce (leased) ...		...	325	325
	Grass		...	1	1
	Stones		...	1	1
	Total minor produce ...		..	327	327
	Grand Total ...		...	3,924	3,924
Toné ...	Deodar trees, green ...	No.	386	3,136	3,136
	Do. do. dry ...	"	24	96	96
	Do. scantlings ...	"	100	3	3
	Chír trees ...	"	2	7	7
	Total timber ...		...	3,242	3,242
	Grazing (animals) ...	No.	2,139	308	308
	Total grazing ...		...	308	308
	Grand Total ...		...	3,550	3,550
	ABSTRACT OF THE CIRCLE.				
	Timber		...	39,888	36,191
	Firewood and charcoal		...	8,841	8,671
	Bamboos		...	7,096	7,096
	Grazing dues, &c.		...	22,057	22,057
	Minor produce		...	11,712	11,542
	Total ...		...	89,594	85,557

FORM No. 64—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments from depôt during the year 1882-83.

Name of Department.	Particulars of supplies.	Amount supplied		Rate. At	Rate. Per	Amount of revenue. Due.	Amount of revenue. Received.	Amount of revenue. Outstanding.	Cost of Forest Department — Timber expenses under A.I.	Cost of Forest Department — Quota of all other expenditure chargeable against timber, &c.	Cost of Forest Department — Total.	Comparison of revenue and expenditure. Surplus	Comparison of revenue and expenditure. Deficit.
JAUNSÁR.		No.	c. ft.	Rs. a. p.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Executive Engineer, Military Works, Chakráta.	Deodar karis	739	2,394	1 8 0	c. ft.	3,592	3,592	...	...	...	...	...	...
	„ planks	44	34	1 8 0	each	66	6	60	...	...	...	...	...
	Rai karis	52	63	1 0 0	c. ft.	63	63	...	...	...	...	...	...
	„ planks	305	244	1 0 0	each	305	305	...	...	...	...	...	...
	Total ...	1,140	2,735	...	...	4,026	3,966	60	3,355	595	3,950	76	...
			c. ft										
Ditto ditto ...	Oak firewood		3,000	10 0 0	% c. ft,	300	300	...	...	...	...	...	...
	Ditto		3,500	8 0 0	% „	280	280	...	...	...	...	...	...
	Charcoal		500	0 4 0	c. ft.	125	125	...	...	...	...	...	...
Commissariat officer, Chakráta.	Fir firewood		31,307	23 8 6	% c. ft.	7,367	7,367	...	...	...	...	...	...
	Oak ditto		7,026	33 0 0	% „	2,319	2,319	...	...	...	...	...	...
	Do. ditto		9,280	30 0 0	% s. ft.	2,784	384	2,400	...	...	...	...	...
	Fir ditto		41,480	22 8 0	...	9,333	7,623	1,710	...	...	...	...	...
	Oak ditto		726	15 4 6	...	111	111	...	...	...	...	...	...
	Total { Firewood ...	31,027 mds	96,819	...	...	22,619	18,509	4,110	18,550	3,573	22,123	496	...
	Total { Charcoal ...	167 „											
TONK. Réjputána—Málwa State Railway.	1st class metre gauge deodar sleepers. No.	40,475		1 14 0	each	75,891	75,891	...	...	...	...	...	...
	2nd class ditto ditto „	830		0 15 0	...	776	778	...	...	...	...	...	...
Executive Engineer, Muttra bridge division.	Broad gauge deodar sleepers No.	984		4 0 0	...	3,936	3,936	...	...	...	...	...	...
	Total No.	42,289		...	...	80,605	80,605	...	55,583	5,309	60,892	19,713	...
	GRAND TOTAL...			...	...	1,07,250	1,03,080	4,170	77,488	9,477	86,965	20,285	...
								Deduct surplus (or deficit) ...			...	...	
								Balance for the Department ...			...	20,285	

FORM No. 65—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Abstract showing the value and other produce at Sale Depôts for the year 1882-83.

Description of timber and other produce.	*On hand at commencement of the year.*			*On hand at close of the year.*			*Difference in value.*	
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
			Rs.			Rs.	Rs.	Rs.
DEHRA DÚN	...	...	...	...	...	...	...	...
SAHÁRANPUR	...	...	...	...	...	...	...	...
JAUNSÁR—								
Deodar karis and planks ...	6,571	14,849	14,849	6,346	13,850	21,118	6,269	...
Rai karis, planks and ballis ...	1,410	1,161	232	796	830	830	598	...
Kail karis and planks	23	29	23	21	26	32	9	...
Shisham planks	4	4	4	2	2	3	...	1
Oak and fir firewood	...	17,566	3,670	...	5,038	772	...	2,898
Oak fagots	...	...	...	956	...	179	179	...
Charcoal	...	...	...	...	947	355	355	...
Total ...	8,008	33,609	18,778	8,121	20,693	23,289	7,410	2,899
TONS—								
At Delhi Depôt.								
Broad gauge deodar sleepers ...	223	774	892	583	2,017	2,332	1,440	...
Metre gauge deodar sleepers ...	1,528	2,037	764	613	817	307	...	457
In forests.								
Broad gauge deodar sleepers ...	45,356	157,479	90,712	40,259	139,781	90,389	...	323
Metre gauge deodar sleepers ...	11,468	15,556	8,817	20,958	28,870	16,468	7,651	...
Chír sleepers	...	...	...	113	452	57	57	...
10′ deodar logs	158	3,476	59	158	3,476	59	...	...
6′ ditto	170	2,100	42	170	2,100	42	...	...
Chír beams	...	...	...	5	22	3	3	...
Total ...	58,903	181,422	1,01,286	62,859	177,585	1,09,657	9,151	780
GRAND TOTAL ...	...	...	1,20,064	...	...	1,32,946	16,561	3,679

NOTE.—Net difference in favor of the year, Rs. 12,882.

FORM No. 65.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Abstract showing the value of Live and Dead Stock for the year 1882-83.

Description of live and dead stock.	*On hand at the commencement of the year.*		*On hand at the close of the year.*		*Difference in value.*	
	No.	Value.	No.	Value.	In favor of the year.	Against the year.
DEHRA DÚN DIVISION.		Rs.		Rs.		R.s
Surveying and other instruments	24	155	29	241	86	...
Tools	1,574	787	1,703	999	212	...
Office furniture...	56	418	106	688	270	...
Tents	13	969	19	925	...	44
Buildings and building materials, &c.	44	3,530	73	4,965	1,435	...
Miscellaneous	204	267	251	365	98	...
Elephants	1	2,800	2	3,000	200	...
Total ...	1,716	8,926	2,183	11,183	2,301	44
SAHÁRANPUR DIVISION.						
Surveying and other instruments	8	44	10	50	6	...
Machinery	20	136	21	138	2	...
Tools	882	491	919	500	9	...
Office furniture	97	587	111	651	64	...
Tents	6	215	6	215	...	...
Buildings and building materials	26	1,497	26	1,497	...	...
Miscellaneous	293	538	344	725	187	...
Elephants	1	2,000	1	2,000	...	...
Total ...	1,233	5,508	1,438	5,776	268	...
JAUNSÁR DIVISION.						
Surveying and other instruments	8	61	8	120	59	...
Tools	1,027	2,579	1,172	1,182	...	1,397
Office furniture	22	110	24	159	49	...
Tents	3	201	3	20	...	181
Buildings and building materials and house fittings,	66	23,271	181	20,059	...	3,212
Total ...	1,126	26,222	1,388	21,540	108	4,790
TONS DIVISION.						
Surveying and other instruments	15	239	17	252	13	...
Machinery	10	77	10	77	...	...
Tools	1,309	1,911	1,350	2,004	93	...
Office furniture	29	168	33	173	5	...
Tents	2	150	2	120	...	30
Buildings and building materials	25	6,952	28	6,957	5	...
Miscellaneous	76	181	110	233	52	...
Total ...	1,466	9,678	1,550	9,816	168	30
DIRECTION DIVISION.						
Surveying and other instruments	33	317	33	317	...	...
Machinery	1	8	2	16	8	...
Tools	36	503	36	503	...	...
Office furniture	261	3,400	357	4,008	608	...
Tents	11	1,077	11	775	...	302
Buildings and building materials	8	20,435	8	20,235	...	200
Miscellaneous	4	2,435	23	2,348	...	87
Elephants	1	2,000	1	2,000	...	...
Total ...	355	30,205	471	30,232	616	589
GRAND TOTAL ...	...	80,539	...	78,547	3,461	5,453

NOTE.—Net difference against the year, Rs. 1,992.

Appendix A.

Meteorological observations.

Results of Meteorological observations conducted by DR. WARTH *in the Forest School compound.*

Observatory in a standard pattern shed. Instruments 4 feet above ground.

Calendar year 1882.	Dry minimum.	Dry maximum.	Daily mean dry.	Mean vapour tension.	Mean relative humidity.	Rainfall in inches.
January	43°·3	67°·2	54°·3	0·304	72	3·22
February	43°·5	66°·9	54°·0	0·281	67	2·13
March	62°·0	82°·8	65°·7	0·352	56	0·34
April	58°·7	89°·0	72°·6	0·427	50	0·89
May	65°·1	92°·7	77°·5	0·517	52	2·67
June	72°·8	91°·9	80°·6	0·728	69	7·78
July	72°·9	85°·6	77°·6	0·813	85	31·17
August	72°·8	85°·9	77°·4	0·803	84	13·89
September ...	69°·2	86°·7	76°·5	0·717	76	0·61
October	57°·3	85°·8	69°·8	0·558	71	0·34
November ...	45°·5	76°·9	58°·8	0·497	84	0·15
December... ...	41°·1	72°·8	54°·9	0·323	68	0·00
Averages ...	57°·9	82°·0	68°·3	0·527	70	63·19

Abstract of comparative observations taken at the elevated station and at the standard pattern station.

From 1st October, 1882, to 30th March, 1883.	At 4 feet from the ground.	At 66 feet from the ground.	From 1st October, 1882, to 30th March, 1883.	At 4 feet from the ground.	At 66 feet from the ground.
Minimum dry ...	45°·6	52°·8	Minimum vapour tension,	0·272	0·277
Daily range ...	29°·2	20°·5	10 a. m. ditto ...	0·393	0·324
Maximum dry ...	75°·0	73°·3	4 p. m. ditto ...	0·439	0·298
10 a. m. dry ...	65°·4	64°·6	Maximum ditto ...	0·362	0·298
4 p. m. dry ...	71°·0	70°·1	Minimum relative humidity.	86	69
Daily mean dry ...	58°·5	61°·4	10 a. m. ditto ...	60	52
Minimum wet ...	43°·5	47°·8	4 p. m. ditto ...	54	40
10 a. m. wet ...	57°·4	54°·8	Mean ditto ...	66	53
4 p. m. wet ...	60°·6	56°·3	Rainfall in inches ...	7·81	7·39

Appendix B.

Reducing factors.

Spruce and silver fir (Jaunsár division).

Kind of tree.	No. of trees.	Girth.	Average cylindrical contents of stem, cubic feet.	Average cubic contents of branchwood stacked, cubic feet.	Total average cubic contents.	Reducing factors.
Spruce fir	1	8′ 5″	325·7	66	391·7	0·57
Ditto	1	7′ 7″	317·2	46	363·2	
Ditto	2	7′ 5″	299·9	33·5	333·4	
Ditto	1	7′ 4″	231·7	37	268·7	
Ditto	1	6′ 10″	183·1	56	239·1	
Ditto	1	5′ 8″	116·5	24	140·5	
Silver fir	1	7′ 5″	252·3	45	297·3	0·57
Ditto	1	6′ 9″	201·5	36	237·5	
Ditto	1	6′ 8″	189·9	20	209·9	
Ditto	2	6′ 7″	160·9	22	182·9	
Ditto	1	6′ 0″	140·1	29	169·1	
Ditto	1	5′ 10″	147·7	20	167·7	
Ditto	1	5′ 8″	121·9	24	145·9	
Ditto	1	5′ 6″	119·9	47	166·9	
Ditto	1	5′ 4″	95·0	10	105·0	

Outturn in metre-gauge sleepers and reducing factor of deodar trees (Tons division).

Number of trees.	Girth.	Average total cubic contents of tree (including branches) in cubic feet.	Average number of good metre-gauge sleepers, 6½′ × 8¼″ × 4½″.	Average cubic content of good sleepers in feet at 1½ feet each.	Average cubic content of waste wood and rejected sleepers in feet.	Average proportion between cubic content of good sleepers and total cubic content of the tree.	Reducing factor, i.e., proportion between cubic content of good sleepers and the ideal cylinder.
3	6′	180	44	66	114	·37	·23
7	7′	248	71	106½	141½	·43	·24
11	8′	291	79	118½	172½	·41	·20
15	9′	345	85	127½	217½	·37	·17
Total and averages. 36	$8\frac{1}{18}$	296	77	116	180	·39	·27

The average shown in the 7th column is identical with that obtained during 1881-82. The figures now given in the eighth column are not available for 1881-82.

Appendix C.

Counting of concentric rings.

Concentric rings counted in 1882 *by* MR. HEARLE.

Blocks.	Number of trees.	Supposed age (years).	Average radius.	Number of rings. 0″ to 2″	2″ to 4″	4″ to 6″	6″ to 8″	8″ to 10″	10″ to 12″	12″ to 14″	14″ to 16″	16″ to 18″
					Spruce fir.							
Kanjátra ...	2	154	11″·88	17	11	15·5	28·5	47	40	14	...	...
Hajáwa ...	2	164·5	15″·25	19·5	11·5	19	24·5	26·5	26	30	45	...
Thona ...	2	164·5	17″·08	19	12	11·5	11	9	17	30	36	38
Mohna ...	2	129	14″·63	16	10·5	11·5	14·5	18·5	18·5	21·5	36	...
Totals and averages,	8	153	14″·71	17·9	11·3	14·4	19·6	25	25·4	27·9	39	38
					Silver fir.							
Kanjátra ...	2	127	12″·00	21·5	13·5	13	24	25·5	29·5	...	...	...
Hajáwa ...	1	117	10″·75	22	15	16	20	44	...	...	...	...
Totals and averages,	3	124	11″·58	21·7	14	14	22·7	31·7	29·5	...	...	...
					Boxwood.							
				1″	2″	3″	4″	5″				
Thona ...	1	163	5″	20	29	34	40	40	..	...	...	...
Mohna ..	1	156	5″	17	25	34	40	40	...	...	...	...
Totals and averages,	2	159·5	5″	18·5	27	34	40	40	...	...	...	...

Ring countings on deodár stumps at Deota during 1882 *by* MESSRS. MOIR AND HOBART-HAMPDEN.

Block and compartment.	Number of tree.	Supposed age of tree (years).	Average radius.	Number of rings. 0″ to 2″	2″ to 4″	4″ to 6″	6″ to 8″	8″ to 10″	10″ to 12″	12″ to 14″	14″ to 16″	16″ to 18″	18″ to 20″	20″ to 22″	22″ to 24″	24″ to 26″	26″ to 28″	Remarks.
Katatách, Compartment IV.	1	159	22″	11	12	11	10	11	10	8	11	18	22	...	...	...	...	An addition has been made to the number of rings actually counted so as to allow for the early growth of the trees.
	2	152	12½″	17	22	30	21	22	30	...	...	...	...	...	...	...	...	
	3	208	20″	53	37	14	11	18	15	11	7	22	20	...	...	...	...	
	4	342	23″	20	26	31	11	12	20	14	24	43	About 65	About 40	...	...	...	In some cases it seems to be doubtful whether the trees have formed more than one concentric ring in one year.
	5	191	14½″	24	35	30	20	20	19	33	10	...	...	...	...	...	...	The aspect is east and south-east.
	6	181	14½″	20	19	28	25	22	23	29	15	...	...	...	...	...	...	The rock is gneiss and the ground is steep.
	7	177	18″	24	28	20	15	17	21	23	29	...	...	...	...	...	...	
	8	192	26″	20	18	14	10	10	8	13	11	12	17	12	11	18	8	
	9	181	17½″	51	21	14	14	11	13	15	20	22	...	...	...	...	...	
	10	192	12½″	28	19	18	33	36	48	17	...	...	...	...	...	...	...	
	11	200	16½″	25	15	23	22	21	22	29	32	11	...	...	...	...	...	
	12	183	15″	18	14	19	23	31	30	35	15	...	...	...	...	...	...	
	13	206	15½″	25	21	17	26	24	30	26	37	..	...	...	...	...	...	
	14	198	15″	31	30	38	28	21	20	20	10	..	...	...	...	...	...	
	15	279	18½″	70	26	22	31	22	23	39	17	19	10	...	...	...	...	
	16	165	14″	22	18	25	24	44	31	31	...	...	...	...	...	...	...	
	17	187	11″	15	26	42	34	34	21	15	...	.	...	...	...	...	...	
	18	163	8½″	42	40	42	30	9	..	...	...	...	...	...	...	...	...	
	19	171	14″	25	17	22	17	25	31	34	...	...	...	...	...	...	...	
	20	168	12½″	35	32	43	30	22	6	...	...	..	...	...	...	...	...	
	21	214	13½″	35	27	27	28	40	35	22	...	...	...	...	...	...	...	
	22	148	13½″	20	16	17	20	22	31	22	...	...	...	...	...	...	...	
	23	143	10½″	17	21	36	25	31	13	...	...	...	...	...	...	...	...	
	24	159	13″	25	13	15	22	25	37	22	...	...	...	...	...	...	...	
	25	141	18″	18	11	12	12	14	18	12	20	24	...	...	...	...	...	
	26	174	15″	35	18	17	22	21	24	25	12	.	...	...	...	...	...	
	27	242	20″	34	19	23	24	25	27	23	15	24	28	...	...	...	...	
	28	183	15½″	24	34	29	17	13	15	23	19	9	...	...	...	...	...	
	29	172	18″	14	13	13	14	10	15	28	30	35	...	...	...	...	...	
	30	185	12½″	33	24	28	23	33	34	20	..	...	...	...	...	...	...	
	31	173	14″	28	20	17	20	21	22	35	..	.	...	...	...	...	...	
	32	198	18½″	20	24	21	13	17	14	25	23	29	22	...	...	...	...	
	33	183	16½″	34	32	17	24	21	15	24	23	3	...	...	...	...	...	
	34	195	14″	20	23	22	26	35	29	40	...	...	...	...	...	...	...	
	35	159	16½″	22	15	12	17	20	10	22	25	16	...	...	...	...	...	
	36	174	15″	25	25	18	17	22	19	26	22	...	...	...	...	...	...	
	37	205	16″	28	24	26	17	21	19	44	26	...	...	...	...	...	...	
	38	194	13″	19	21	34	33	22	40	25	...	...	...	...	...	...	...	
	39	154	14″	31	36	18	16	16	16	21	...	...	...	...	...	...	...	
	40	186	22″	19	19	13	17	9	13	17	20	11	18	30	...	...	...	
	41	178	16½″	13	19	17	16	22	25	26	30	10	...	...	...	...	...	
	42	178	16½″	17	11	15	18	39	28	15	25	10	...	...	...	...	...	
Total and average.	42	186·6	15·8	26	23	23	21	22	22	24	20	19	25	27	11	18	8	

Appendix D.

Annual plan of operations, 1882-83.

Dehra Dún Division.

Remarks.	*Plan.*
1. The sál and sain were sold. The kukat trees will be sold in September, 1884.	1. Trees marked for thinning in the Assarori block of the Rámgarh forest to be sold by public auction.
2. Under subsequent sanction, 700 sain, 800 kukat, 277 chír were marked and sold in the Tehri-Garhwál forests.	2. Selection fellings to be made in the Tehri-Garhwál forests; 200 trees to be marked and sold.
3. A portion has been sold for Rs. 5,000; remainder to be sold in 1883-84.	3. Sales of standing timber on district land proposed.
4. Two hundred kukat trees were marked and sold in Suswa forest, and these were the only fellings in open forests, except those of Tehri-Garhwál.	4. Fellings of standing timber in the open forests deprecated.
5. Mr. Scott's contract expired on 31st March, 1883.	5. Completion of Mr. Scott's contract.
6. A good deal of this has been sold in form of dry tors; no one would make any offer for firewood.	6. Attempts to be made to get the dead wood lying in compartments 18 and 20 of Bullawála removed.
7. Specimens were sent and Messrs. Churchill and Sim's report on them has been received.	7. Specimens of tún and thanella logs to be sent to Messrs. Churchill and Sim of London.
8. Continued, except for Eastern Siwálik forests (where minor produce revenue was collected by Government agency) and in closed forests as before.	8. Auction sales of farming leases to be continued.
9. Revised measures have been drafted by Conservator.	9. Revised measures for collecting grazing dues to be proposed.
10. This has been done.	10. The forest export roads to be cleared of jungle and repaired.
This has been done and the land given gratis by the zamindar. The work, however, requires revision.	Completion of Tháno-Lachiwála road through the Joli grant.
It was necessary to postpone the construction of road from Tháno to Dholáni, as all district funds available were required for Rikhikesh road.	Road to be constructed from Tháno to Dholáni bridge, partly with district funds and partly with funds from Forest Department.
Road constructed as far as Raiwála from Rikhikesh.	Road to be constructed from Rikhikesh to the Hardwár road in the same way.
Postponed till 1883-84.	Road connecting Eastern Siwálik forests with Dehra-Hardwár road to be marked out.
Postponed till 1883-84.	Roads through forest on both sides of Chakráta road near Timli pass to be constructed.
11. The two former completed, the latter nearly so.	11. Pucka chaukis at Assarori, Dararit, and Kharkhari to be completed.
Under subsequent sanction a pucka bungalow is now being constructed at Maidán.	Temporary grass rest-house to be built at Maidán.
Rámgarh and Parduni grass houses completed; construction of remainder postponed till 1883-84.	Temporary grass rest-house to be built at Jhájra. Grass rest-houses in progress at Rikhikesh, Parduni, Rámgarh, to be completed.
This work has been pushed on and is nearly complete. It is found preferable to have a wooden fence and trench, and rose hedges are not required.	Erection of chaukis and foresters' huts where required, and all buildings to be surrounded by a trench and rose hedge.
12. Made over to Working Plans Branch.	12. Valuation surveys proposed in Bullawála.
13. Made over to Working Plans Branch.	13. Description of compartments in the Rámgarh forest to be made.
14. A report has been furnished by Mr. Clifford.	14. Best tracts of forest in Tehri-Garhwál to be selected.
The demarcation of Eastern Dún range completed, 8 miles of bridle-path and ditch constructed.	Demarcation of Eastern Dún range to be completed by construction of bridle-path and ditch.
Boulder pillars have been repaired. Divisional Officer had no time for complete inspection.	Pillars to be inspected by Divisional Officer and repaired where necessary.
15. Deferred till 1883-84.	15. Block boundary to be cut in Eastern Dún forests.

16. In progress.	16. Record of reserve to be completed.
17. Made over to Working Plans Branch.	17. Compartments to be marked out in the Bullawála, Rámgarh and Chandrabani forests.
18. This has been done.	18. Vacancies in Phandawála plantation to be filled in.
14 acres were made at Rámgarh of sál and sain plantation, seed only being used.	Plantations of sál and sain to be made at Rámgarh, 5 acres with seed, 5 acres transplants.
Vacancies will be filled up with transplants in 1883-84.	Two-year-old plants from forest garden and School nurseries to be planted out at Rámgarh.
Deferred till 1883-84, no proper supervision being available.	5 acres sissu and khair to be sown in the Nichla Song block.
19. About one lakh of mulberry plants and a number of tún, mango, and jack grown for district purposes.	19. Forest garden at Kaonli to be used principally as a nursery for district roadside plants.
20. Done.	20. Forest School nurseries to be sown with local and other seeds.
This was attempted in the case of 750 chír plants, but owing to want of rain all died.	Two-year-old seedlings to be transplanted to Rámgarh.
21. Done, with some improvements.	21. The same measures to be followed out in fire conservancy as in former years.
Only small area in Rámgarh forest added.	No extension of closed forests advocated.
As subsequently arranged this will not be carried out, unless advised by Superintendent of Working Plans.	Proposal to restrict fire conservancy in the Nichla Song block to the area where plantations are in progress.
22. Register of yield is kept up in office. Other books will be kept up when Divisional Officer has any spare time. Proposal that range officers should keep the books subsequently disapproved by Conservator.	22. Books showing Register of yield, Record of works, Forest journal.
	It was said that these could be kept up better by range officers than in the divisional office.
This will be arranged for as soon as the new permanent establishments are sanctioned.	Vernacular books to be kept up in each forest.
23. Done.	23. Forest apprentices to be employed as in former years.
24. Done.	24. Sample plots. The trees to be measured as in the former years.

SAHÁRANPUR DIVISION.

1. i. Carried out.	*Boundaries.*—1. i. Ditches will be dug round a portion of Patri forest.
ii. Not finished.	ii. Pillars to be put up at all angles of boundaries.
iii. Work commenced, not finished.	iii. Sakrauda and adjoining blocks to be demarcated.
iv. Question not dealt with during year.	iv. Question of exchanging part of Sakrauda forest for part of Mr. Powell's land in western range to be taken in hand and dealt with.
v. In central range, a 15-feet line commenced, 12 miles completed.	v. Boundary lines in western and central ranges to be cleared and a 10 feet line to be cut along edge.
vi. Carried out.	vi. Repair of pillars and erection of new pillars to be continued. Temporary pillars to be put up where necessary.
vii. Mostly finished.	vii. All pucka masonry pillars to be numbered and all marks and lines to be surveyed on to the map.
2. Carried out in central range.	2. *Limits of ranges, blocks and beats.*—Masonry pillars with stone letter posts to be erected where block boundaries abut on Khára-Hardwár road.
3. Done.	3. *Areas.*—Areas to be obtained from Forest Survey Department.

4. Postponed till the boundaries are properly laid down on the ground.	4. *Record of reserves.*—Record of reserves to be drawn up as soon as pillars are all numbered and temporary pillars erected.
5. i. Done.	5. *Notice boards.*—i. When received from Roorkee to be put up round closed portions of Patri, central range, and Daula block.
ii. Carried out.	ii. Present boards in central range and Kálushahid will have to be painted.
6. Postponed as not being urgent.	6. *Description of compartments.*—The compartments of closed forests to be described as laid down in "Plan of operations, 1881-82."
7. Intention to carry this out abandoned for the present.	7. *Valuation surveys.*—To be taken in hand for open blocks of central range soon after the rains.
8. Carried out.	8. *Measurement of growing trees.*—Trees in sample plots to be marked with a ring of white paint, numbered, and measured; and the plots to be demarcated with a ditch and piles of stones. Record of measurements to be kept in a separate book.
9. i. Done.	9. *Roads and compartment lines*—i. Clearing and repairs of roads to be done in September while ground is moist.
ii. Done.	ii. The roads of certain blocks to be made into 15-feet cart-roads.
iii. Partially done.	iii. Steep places along compartment lines to be made easy, so as to allow cart traffic.
iv. Carried out for 8 miles.	iv. Hardwár-Khára road to be made into a good cart-road, as far as funds admit; repairs to begin at Mohan and go on towards the Ganges; steep ascents to be avoided.
v. Carried out.	v. The line between compartments 3 and 4, Ganjarban block, to be cut 10 feet wide, cleared of trees and all stumps removed.
vi. Postponed.	vi. Daula compartments to be numbered by tickets attached to trees.
vii. Carried out.	vii. Path from Daula to Khára canal bungalow to be repaired and made into a bridle-path 6 feet wide.
10. i. Carried out.	10. *Fire protection.*—i. Outer lines to be burnt 200 feet wide.
ii. Carried out.	ii. Hardwár-Khára road to be burnt 100 feet wide where it goes through the fire-protected blocks.
iii. Carried out.	iii. Interior lines, especially along roads, to be burnt 100 feet wide; they are the Lakarkot and Dholkand roads and the Málowála rau.
iv. Carried out.	iv. The hill tract between Chikna and Betban, comprising the Rátmau basin, will be protected as usual. The fire lines running down Chikna, Binj, Bám and Betban raus will be burnt conjointly with the Dún division.
v. Carried out.	v. Daula and Kálushahid blocks will be protected, as hitherto.
vi. Carried out.	vi. 1,000 acres round Patri bungalow will be demarcated by a 10-feet line cleared, and a 200-feet strip will be burnt outside. The following interior lines will also be burnt:—Landhaura road where it passes through the fire-protected area, and the road leading from Jawálapur to Budhaheri, &c., passing along western boundary of plantation.
vii. Carried out.	vii. A line 100 feet wide to be burnt round plantation.
viii. Intention abandoned.	viii. The proposal to convert block 3 into a large plantation to be considered before closing the 1,000 acres.

11. i. Nearly completed.	11. *Buildings.*—i. Dholkand rest-house to be completed.
ii. Postponed.	ii. Ranger's head-quarters at Dholkand and Ránipur to be built soon after the rains, according to plans submitted.
iii. Postponed to 1883-84.	iii. A rest-house is wanted at Kasumri.
iv. Not carried out.	iv. A rest-house at or near Khára will probably be required, and a ranger's house as well. Plans to be submitted; the buildings to cost about Rs. 1,200 and Rs. 500 or Rs. 300.
12. i. Dholkand well finished; Ránipur well postponed till 1883-84.	12. *Wells.*—i. Wells needed at Dholkand and Ránipur.
ii. Intention abandoned.	ii. Well in Lakarkot block at Hazára will be repaired and cleaned out.
iii. Postponed till 1883-84.	iii. Well at Patri to be repaired and cleaned out.
iv. Not urgent, and perhaps not necessary.	iv. Three old pucka wells in Patri forest to be looked at and, if necessary, to be repaired and cleaned.
v. Carried out in part.	v. Patri rájbaha to be repaired this year, but not to be used in future, if water can be obtained from the Kankhal rájbaha.
13. i. Carried out.	13. *Sowing and planting. Sál.*—i. Five acres to be sown in continuation of last year's work in compartment 3, Ganjarban.
ii. Carried out in Bám block.	ii. Five acres to be sown in Rasulpur block west of Sendli rau. Measures for protection from fire to be taken in hand.
iii. Intention not carried out.	iii. Two acres up one of the "chaura" in Dholkand rau will be sown in a similar manner.
iv. Carried out.	iv. Seed to be sown in June; patches to be covered with cowls in November.
v. Carried out.	v. A plot 15 feet square sown broad-cast will be carefully watched.
vi. Carried out.	vi. *Khair.*—The plantation in compartment 3 of Ganjarban and that in Rasulpur will have grass cleared away over existing seedlings.
vii. Accidentally burnt.	vii. *Shámmansur.*—To be protected from fire and watched.
viii. Carried out.	viii. *Patri.*—Plot No. 20 to be resown. Trench system to be abandoned and patch system adopted.
ix. Not considered advisable at present.	ix. Proposition for converting 12,000 acres into one large plantation to be considered.
x. Carried out.	x. *Ránipur.*—Kikar to be sown in lines 2½ feet wide and 10 feet apart; Mohwa in patches 3′ × 3′. Bamboo to be sown in beds 10′ × 10′.
14. i. Carried out.	14. *Bamboos.*—i. Rotation of bamboo blocks to be maintained.
ii. Postponed for further discussion.	ii. The Kálushahid bamboo thinning experiment to be continued on a larger scale.
iii. Project abandoned.	iii. Another experiment on a larger scale to test whether clumps of *Dendrocalamus strictus* die after flowering will be made.
iv. Carried out.	iv. 30 clumps to be treated according to directions in para. 15 of last year's plan.
v. Project abandoned.	Experiments with regard to the effect of cutting bamboos during the *light* half and the *dark* half of the moon to be undertaken.
15. i. Carried out.	15. *Climber cutting.*—i. Compartments in Rasulpur block to be gone over, and then Nos. 3 and 4 of Ganjarban.

ii. Postponed for future years.	ii. Afterwards work to extend from Betbán westwards as far as funds admit.
16. Abandoned as not important.	16. *Cutting parasites.*—*Loranthus* to be cut in Lakarkot on sál trees only.
17. i. Carried out.	17. *Removal of dead and dying trees*—i. Such trees to be removed from the closed area during rains and winter.
ii. Postponed to 1883-84.	ii. Thinning out of suppressed sál trees in the Sepia nála, Sakrauda block, to be undertaken.
iii. Sold.	iii. Confiscated wood of former cuttings in 3 blocks to be sold by auction, and when brought out to be marked before removal.
18. i. Carried out.	18. *Minor forest produce.*—i. In the western range the revenue on minor forest produce will be collected through the chaukia.
ii. Carried out.	ii. In central and eastern ranges leases will be continued as hitherto.
iii. Leases given for bamboos, lac, wax, honey, and bhábar grass.	iii. No lease will be given in the closed forests, which will be worked departmentally until 15th December for plain, and 1st January for hill forests.
19. No difficulty experienced.	19. *Grazing dues.*—Little difficulty will arise in the collection of the dues.
20. Carried out.	20. *Use of marks.*—Contractors taking out large quantities of wood to have and use marks of approved pattern.
21. Carried out.	21. *Herbarium specimens.*—Collection of specimens will continue to be made.
22.	22. *Books.*—The following books will be kept up :—
i., ii., iv. Kept up.	i. Register of yield (Form 2).
	ii. Record of works of reproduction and improvement (Form 3).
iii. Postponed to 1883-84.	iii. Forest journal.
	iv. Plantation journal.
v. Postponed till matter is collected.	v. The books mentioned in the joint memo. by Mr. Brandis and Major Bailey will be drawn up when sufficient matter is collected for them.
23. Generally employed on special works, some of which are mentioned in para. 25.	23. The plan of operations will furnish employment for probationers and apprentices who may be in charge of ranges or forests ; details given in para. 25 of last year's plan of operations.

JAUNSÁR DIVISION.

1. Done.	1. *Boundaries.*—Additional pillars to be erected where necessary, forest by forest. The boundaries of the leased Tehri-Garhwál forests to be laid down. Pillars to be erected along the main roads where they pass from one block to the next and also at the mileposts.
2. Map of Mohna block prepared by Forest Survey. The other maps still to be obtained.	2. *Surveys.*—An enlarged map of Mohna block, 16 inches=1 mile, to be obtained from the Forest Survey Department, and similar maps of the cantonment blocks to be procured.
3. Postponed to 1883-84.	3. *Record of reserves.*—To be completed for the Kálsi and Karámba forests and for the leased forests.
4. To be done in 1883-84 by Working Plans Branch.	4. *Working plans.*—Valuation surveys to be made in Bodyar and Dhárागádh.
Postponed to 1883-84.	A descriptive account of the Rikná and Shikára forests to be prepared. Thona block to be divided into compartments.

5. Rings counted on 8 spruce, 3 silver fir and 2 box trees.	5. *Ring counting (coniferous trees).*—To be continued from time to time whenever fellings take place.
6. Measurement of 7 spruce and 10 silver fir trees taken.	6. *Reducing factor.*—To be determined for deodar, silver and spruce firs, and karshu oak.
7. Done.	7. *Communications.*—Roads and paths to be repaired, new fuel-carrying roads made in Mohna and Hajáwa where required.
Done.	Inspection paths to be made in the Dháragádh and Riknár forests. A new road wanted from Bagaru Láni to Mangol Thát in the Siári block, Konain.
Done.	The widening of the Tons-Chakráta road to be steadily continued every year, and the number of miles of roads and paths correctly calculated and entered in the Annual Report.
Prepared and submitted.	Plans and estimates for roads and slides in the Dháragádh forests, and for regulating the channel of the Dháragádh, to be prepared.
8. Stones collected.	8. *Buildings.*—A small rest-house to be built in the Chakráta forest garden.
Done.	A forester's hut to be built at Mandáli and two forest guard's huts to be built, one at Koti (Báwar), the second at Koti (Kanásar). Additional accommodation required at Deoban, Kathián, Konain, and Bodyár.
9. Done.	9. *Fire protection.*—The usual areas to be protected, and an exact area statement to be obtained from Forest Survey Department.
10.	10. *Planting and sowing and wounding the soil to encourage natural reproduction.*—*Mohna.*—Wounding of the soil to be tried, where fellings have been made, in good seed years. Blue pine, deodar, spruce, silver fir and oaks to be raised in suitable localities; the deodar and blue pine seedlings in the Deothát nursery to be put out into nursery lines in July, 1882; but the blue pine should be left in beds for another year if they do not germinate before the rains of 1882. Choli (Siári block, Konain) forest to be carefully weeded.
See detailed account in appendix E. 1882 was a bad seed year for deodar.	
Carried out.	
Done.	*Cantonment blocks.*—Sowings to be continued vigorously with deodar, chir (*P. longifolia*), bán (*Q. incana*), and blue pine.
Done.	*Forest garden.*—Fruit trees may be obtained from Ranikhet or Mussoorie, and seeds of exotic species sown as received.
	Hajáwa.—No planting or sowing to be done here until it is certain that natural reproduction is a failure.
11. Done.	11. *Thinning of P. excelsa at Konain.*—To be continued, but no trees required for shelter to be removed.
12. Done.	12. *Felling for timber.*—Deodar timber for Chakráta to be brought from Konain. The deodár logs at Konain to be sawn up, and the indent received from Executive Engineer in 1881 to be completed.
13. Examined and reported on.	13. Boxwood localities to be examined and reported on. Orders will be taken regarding further fellings in the autumn of 1882. The specimens of wood required by Messrs. Churchill and Sim and Messrs. Gardner and Co. will be prepared and despatched.
14. The indents for the year were supplied.	14. *Fellings for fuel.*—An annual consumption of 150,000 solid cubic feet of fuel will be provided

	for in the manner suggested in Mr. Brandis' report of 1881.
15.	15. *Fuel experiments.*—The following experiments will be continued :—
i. This experiment could not be carried out for want of water.	i. To determine the relation between a solid and a stacked cubic foot of oak and fir.
ii. Done.	ii. To determine the loss of weight of fuel when exposed and when stored under cover.
iii. Done.	iii. To find the number of cubic feet (solid) that are equivalent to 100 maunds of oak and fir.
16. This will be done hereafter.	16. At the conclusion of these experiments an arrangement should be made with Commissariat Department regarding the equivalent of volume to weight.
17. The intention was abandoned.	17. *Charcoal-making.*—Charcoal is required for the Brewery and for Chakráta, and may be made at Kurwa.
18. Done.	18. Two plots each of karshu, moru and bán oaks in suitable localities containing a large proportion of poles and young trees should be coppiced in order to test the coppicing powers of these species.
19. Postponed to 1883-84.	19. *Periodical measurements of trees.*—Plots of the three oaks should be marked off and the annual increase in girth measured, as suggested in Mr. Brandis's report of 1881.
20. Done.	20. *Sale of farming leases.*—The Kálsi lease will be sold by auction in March.
21. Done.	21. *Collection of seeds.*—Various kinds to be collected to supply indents and for the forest garden.
22. Collection made by Mr. Hearle.	22. *Herbarium collections.*—To be made by all probationers and apprentices.
23. Workmen could not be obtained. To be done as soon as possible.	23. *Iron ore.*—Further smelting to be carried on in the Lakhau forest.
24. This was attended to.	24. *Collection of revenue.*—Every endeavour should be made to improve this.
25. This was attended to.	25. *Use of marks.*—Special attention to be given to this matter.
26. Revised forms have been ordered.	26. *Books.*—Register of yield, Record of works of improvement, and Forest Journal to be maintained.
27. No men under instruction.	27. Details given of instructive employment for probationers and apprentices.

TONS DIVISION.

1. The boundaries of all the forests in the Deogár range were gone over by Mr. Murray in connection with the records of reserves.	1. *Boundaries and demarcation of forests in British territory.*—All boundary pillars will be examined and repaired if necessary.
i. Proposals submitted to Conservator.	i. *Leased forests.*—The demarcation of Deota, Lambatách, Bámsu, Surás, and Kotigádh will be completed, and final proposals made for submission to the Raja. The demarcation of the Dútmir forest will also be effected and proposals submitted.
ii. Done.	ii. *Chír forest on the banks of the Tons.*—These forests will be examined and proposals for the reservation of certain additional areas submitted.
iii. Done.	iii. *Raiengarh and Dádi.*—These forests will be surveyed by the Forest Survey Branch.
iv. Owing to pressure of other work Deputy Conservator had no time to complete the work in the Pábar basin, but the forests at the head of the Rupin were examined.	iv. *Bashdhr forests.*—The remainder of the forests will be examined and final report submitted.

2. Mr. Murray went over the boundaries of the Deogár forests and submitted report showing that a good many mistakes in the positions of the boundary pillars exist. Mr. Murray also commenced the record for Raiengarh and Dádi.	2. *Record of reserves.*—Record for forests in British territory will be proceeded with as soon as possible. Afterwards Raiengarh and Dádi will be taken in hand. The leased Tehri-Garhwál and Basháhr forests will be next attended to as soon as the proposals are sanctioned.
3. Mr. Hobart-Hampden had no time to attend to this work, neither had the Deputy Conservator.	3. *Description of compartments.*—This work will be proceeded with for forests not already worked.
4. The rings on 42 stumps have been counted.	4. *Ring countings.*—Ring countings will be continued.
5. Eight trees only were selected and the calculations carefully made.	5. *Reducing factor of deodar.*
6.	6. *Roads and bridges.*—The following new roads will be made :—
i. Done.	i. Extension of Bámsu path.
ii. Done.	ii. New paths in the Jourási block.
iii. Done.	iii. Path from Jogidhár to Arakot.
	The following paths will be repaired:—
i. Done.	i. Road from Dharmigádh to Deota.
ii. Done.	ii. Principal roads at Deota.
iii. Done.	iii. Main path in the Morach forests.
iv. Only a small portion near Tuini bridge done.	iv. Road up Pábar from Tuini bridge to Cháchpur.
v. Work postponed.	v. Paths in the Cháchpur forests.
vi. This has been done, with the exception of a portion near Killár, which it is intended to reconstruct.	vi. Tons path from Tuini to Kálsi.
vii. The Dátmir bridge was repaired, but no repairs were executed on the others.	vii. The wire-rope bridges will be repaired, if necessary.
7. All repairs executed with the exception of Maindrot.	7. *Buildings; repairs.*—Some repairs will be required to the Deota, Thadiár, Maindrot, and Dátmir bungalows.
The work was unfortunately not quite completed before the snow fell, and the hut in consequence was much damaged.	*New huts.*—The Asan hut in the Bámsu forest may be completed.
The old Morách hut was pulled down and the timber removed to another site.	A new hut at Morách forest should be constructed.
Not undertaken.	Two small huts at Deota for students are required.
8. Carried out.	8. *Fire conservancy.*—The same areas as usual will be protected and additions made in Basháhr.
9. The closed portion of the Chándnigádh, Deogár, was surveyed.	9. *Closed 2nd class forests in Jaunsár-Báwar.*—The limits of the Tons chír forests protected from fire are not properly represented on the maps, and this should be attended to.
10. Carried out.	10. *Cultural operations.*—The instructions contained in last plan of operations regarding the methods of planting and sowing should be followed as closely as possible. The plan of digging pits in vertical lines should be given up.
i. Carried out.	i. *Deota forest.*—The planting up of blank spaces in the Partil and Temple blocks will be proceeded with, and as many deodar plants as are available will be planted out.
ii. All contemplated operations were carried out. Sowings of chil (*P. excelsa*) were also made in Dhámpti block.	ii. *Lambatách forest.*—All available plants will be planted out in cleaned patches in the Banárpání block.
iii. The plants were not considered ready for planting out.	iii. *Morách forest.*—All available plants will be planted out into the blank spaces in the Morách and Pushrár blocks.

Some chil (*P. excelsa*) seed was sown in pits where deodar failed during the previous year.

Sowings will be made if deodar seed is available.

11. 75 acres were gone over in the Chakora block.

11. *Thinnings of chil (P. excelsa) at Lambatách.*—Operations in the Chakora block will be completed and then Lohásu and Tunwár blocks taken in hand.

12.

12. *Fellings for* 1882-83.—The fellings for 1882-83 will be confined to compartments 5 and 4 of the Katatách block.

All these trees were felled and sawn up into metre-gauge sleepers. All fallen timber was also sawn up.

The following trees will be felled :—

Green trees	...	...	...	650
Dry trees	...	...	...	65
		Total	...	715

12 felled trees remaining over last year's operations will be sawn up.

Every effort will be made to sell standing trees.

13. About two-thirds of this compartment has been gone over, but much fewer trees were ringed than in compartment III.

13. *Ringing operations at Deota.*—These operations will be extended into compartment IV. of the Temple block.

14. No sales have been effected.

14. *Refuse wood and rejected deodar sleepers at Deota.*—Every effort will be made to dispose of the rejected sleepers.

The manufacture of tar is being kept in mind.

The practicability of manufacturing tar should also be considered.

15. Done.

15. *Box-wood forests.*—These forests should be inspected and report submitted.

16. All the sleepers sawn were not exported, 13,140 having been stacked at the forest depôt.

No indent was received and there was some difficulty about carrying the sleepers at a reduced rate.

16. *Export of metre-gauge sleepers from Deota.*—All sleepers sawn will be exported, but it will be advisable not to float them past Dágpathar depôt till they are actually indented for.

17. Carried out.

17. *Record of expenditure on sleepers.*—These records will be carefully kept up.

18. Done.

18. *Raiengarh sleepers and timber operations.*—The carriage of all the remaining broad-gauge sleepers from the forest depôt to the Pábar depôt will be proceeded with as rapidly as possible.

Works in progress.

Arrangements will be made for the sawing up of all logs and dry trees remaining in the forest.

About 21,000 were floated.

The floating of the broad-gauge sleepers should be arranged for.

19. No more deodar trees sold during the year, though many traders have made offers.

19. *Sale of standing trees.*—About 1,000 deodar trees may be sold from the unreserved portions of Kotigádh, &c.

If enough trees to get in the revenue of the year (net surplus) can be sold, stop work at Deota.

No more chír trees sold.

2,000 or 3,000 chír (*P. longifolia*) trees can be sold on the banks of the Tons.

20. Being kept in mind.

20. *Iron ore.*—The search for iron ore should be continued.

21. A new establishment has been appointed. The rules may be said to be working well; but matters are still in an unsatisfactory state, owing to the non-settlement of the disputes with the Raja of Sirmur and other matters which have now been pending for over a year.

21. *River arrangements of the Tons division.*—The arrangements now started with regard to the control of the floating of timber of the Tons and Jumna should be perfected and the operation of the river rules carefully watched.

22. Many additions have been made.

22. *Collection of herbarium specimens.*—This collection will be added to and completed if possible.

23. Being carefully attended to.

23. *Books and records.*—All books and records detailed in last plan of operations will be kept up and completed.

Appendix E.

Plantations.

(Extracts from the divisional reports.)

Dehra Dún.

Phandawala sál plantation.—In July it was found that a large number of the seedlings of 1881 had died, but that the older transplants had as a rule succeeded. All vacancies were filled up with one-year-old plants from the nursery or from the forest and the area is now completely stocked. The plants were protected from frost by grass caps supported on strong grass stems, but it was subsequently found that the grass growing between the lines tied in a wisp over the plants answered the purpose quite as well as the made-up caps. It benefits the plants to be uncovered for a time after all danger from frost has ceased, but in exceptionally hot seasons it is desirable to recover them from April until the rains break.

Rámgarh sál and sain plantation.—14 acres of sál and sain were sown at Rámgarh, the patches being 7 feet apart and 4 or 5 seeds being sown in each patch. The rainfall was insufficient, and many seedlings died in consequence; a fair proportion has however survived, and vacancies will be filled up during the coming rains. About 750 chír (*P. longifolia*) plants were received from the School compound and planted out, but, notwithstanding that great care was taken with them, they all died.

Landour.—Numbered boundary pillars have been erected at the required points. The effects of fire protection and the prevention of grazing are very marked, and there seems no doubt that a large portion of the area will eventually become naturally stocked with seedlings and coppice shoots of bán, ayár, brás and other trees. The older seedings, which are chiefly deodar, are looking well, but a mixture of bán would have been advantageous. 1,000 plants of deodar, sirís, oaks, and cypress were received from the Chakráta forest garden and put out. There are some well-laid-out nurseries containing seedlings of the following kinds, *viz.*, deodar, cypress, chil (*P. excelsa*), *Quercus serrata*, and chír (*P. longifolia*). The seed was sown in 1882 and will be ready to plant out in the coming rains. Rs. 491 were spent during the year, and Rs. 1,840 remain out of the grant.

Saháranpur.

Sháhmansur (khair and sissu)—This plantation was fenced, but unfortunately it was entirely burnt in February; some of the seedlings may shoot up again, but the younger ones are probably destroyed.

Firozpur Patri.—Mohwa from last year's sowing is looking extremely well; sissu and khair are healthy; har did not germinate, *Casuarina* and *Bauhinia purpurea* are not looking well, and the plants of *Albizzia Lebbek* are very small.

Rasulpur (khair).—The plantation contains numerous seedlings in the midst of the tall grass; the grass round them will be cleared during the rains and the ground will be slightly hoed. The seedlings over nearly an acre are doing remarkably well, many of them being 3 to 5 feet high, and the shoots of last year being 1 to 2 feet long.

Kálushahid (bamboos, mohwa, khair).—Of 424 bamboo stumps planted last year 198 died at once, 36 threw out shoots and then died, 99 are yet alive and may succeed, while 93 are in a flourishing condition. The khair has done remarkably well. Some *Casuarina* was sown, but it proved to be a failure.

Ganjarban (sál).—5½ acres of new ground were sown in patches 2′ × 2′ and 7 feet from centre to centre in lines 8 feet apart. Grass caps were placed over all the patches in the cold weather to protect the seedlings from frost, and they have been kept on ever since. Four maunds of seed were sown in 3,422 patches. Both the old and the new portions of the plantation are doing very well, the new portion better than the old.

Bám (sál).—7 acres were sown in the manner above described, and the plants are said to be doing well.

Jaunsár.

Konain.—The plantation in the Choli block was weeded and is a complete success.

Bodyar.—The deodars planted in 1872 have reached an average height of 3½ feet; those of 1875 are numerous and thriving. Blanks in the plantation of 1878 were filled up. As a rule plants on cool aspects, or obtaining shelter from blue pine or shrubs, are doing well, whereas those on in hot, dry, and bare slopes have suffered severely.

Deothát.—Blanks have been sown up with blue pine and deodar. The plantations of 1874 are fairly well stocked with kharsu and spruce, but the former is a very slow-growing species and has as yet only attained a height of a few feet. The horse-chestnuts planted in 1876 have nearly all died: the species is unsuited to the warm dry slopes on which it was planted. The deodars sown in 1881 have done well on northerly aspects, or where they have received shelter, but on a few slopes facing south they have all dried up. 60,720 deodar seedlings, obtained from sowings made in December, 1881, were put out into nursery lines. They will be planted out in Mohna during the rains.

Kanjátra.—A new nursery has been made at Kanjátra, and 1½ seers of deodar and the same quantity of blue pine have been sown.

Appendix F.

Statement of trees felled.

Division	Description of trees.	Selection fellings, i. e., fellings of mature trees. By Government agency. No.	By Government agency. C. ft.	By contractors. No.	By contractors. C. ft.	By villagers, &c. No.	By villagers, &c. C. ft.	Total. No.	Total. C. ft.	Thinnings. By Government agency. No.	By Government agency. C. ft.	By contractors. No.	By contractors. C. ft.	By villagers, &c.	Total. No.	Total. C. ft.	Clearances. By Government agency.	By contractors.	By villagers, &c.	Total.	Grand Total. No.	Grand Total. C. ft.
Dehra Dún Division.	Sain	...	...	701	14,474	...	...	701	14,474	...	...	821	9,852	...	821	9,852	...	...	...	...	1,522	24,326
	Chír (*P. longifolia*)	...	...	477	6,518	...	...	477	6,518	...	...	...	...	...	...	...	...	...	...	...	477	6,518
	Sál	46	1,296	87	1,628	...	...	133	2,924	...	...	2,922	35,064	...	2,922	35,064	...	...	...	...	3,055	37,988
	Miscellaneous	...	...	1,343	11,748	...	...	1,343	11,748	...	...	...	...	...	...	...	...	...	...	...	1,343	11,748
	Total, 1882-83	46	1,296	2,608	34,368	...	...	2,654	35,664	...	...	3,743	44,916	...	3,743	44,916	...	...	...	...	6,397	80,580
	Total, 1881-82	...	...	315	5,217	...	...	315	5,217	...	...	6,182	71,960	...	6,182	71,960	...	...	...	...	6,497	77,177
Jaunsár Division.	Fir and pine	539	48,166	250	22,500	375	60,000	1,164	130,666	187	10,966	...	...	...	187	10,966	...	...	...	...	1,351	141,632
	Oak	331	18,519	...	...	127	10,000	458	28,519	20	959	...	...	...	20	959	...	...	...	...	478	29,478
	Deodar	132	1,604	...	...	399	33,640	531	35,244	...	...	...	...	...	...	...	...	...	...	...	531	35,244
	Miscellaneous	6	240	64	2,560	97	4,000	167	6,800	1	17	...	...	...	1	17	...	...	...	...	168	6,817
	Total, 1882-83	1,008	68,529	314	25,060	998	107,640	2,320	201,229	208	11,942	...	...	...	208	11,942	...	...	...	...	2,528	213,171
	Total, 1881-82	892	96,417	164	11,560	1,741	175,800	2,797	283,777	60	2,362	...	...	...	60	2,362	...	...	...	...	2,857	286,139
Tons Division.	Deodar green	494	132,392	386	103,448	132	35,376	1,012	271,216	...	...	...	...	...	...	...	...	...	...	...	1,012	271,216
	Deodar dry	144	38,592	24	6,432	9	2,412	177	47,436	...	...	...	...	...	...	...	...	...	...	...	177	47,436
	Chír (*P. longifolia*)	206	30,900	2	300	79	11,850	287	43,050	...	...	...	...	...	...	...	...	...	...	...	287	43,050
	Chil (*P. excelsa*)	...	...	...	...	3,675	367,500	3,675	367,500	...	...	...	...	...	...	...	...	...	...	...	3,675	367,500
	Oak	...	...	...	...	66	6,600	66	6,600	...	...	...	...	...	...	...	...	...	...	...	66	6,600
	Rai (*A. Smithiana*)	...	...	...	...	152	30,400	152	30,400	...	...	...	...	...	...	...	...	...	...	...	152	30,400
	Total, 1882-83	844	201,884	412	110,180	4,113	454,138	5,369	766,202	...	...	...	...	...	...	...	...	...	...	...	5,369	766,202
	Total, 1881-82	1,369	353,202	914	206,720	7,400	710,408	9,683	1,270,330	...	...	...	...	...	...	...	...	...	...	...	9,683	1,270,330
Circle.	Sain	...	...	701	14,474	...	...	701	14,474	...	...	821	9,852	...	821	9,852	...	...	...	...	1,522	24,326
	Sál	46	1,296	87	1,628	...	...	133	2,924	...	...	2,922	35,064	...	2,922	35,064	...	...	...	...	3,055	37,988
	Oak	331	18,519	...	...	193	16,600	524	35,119	20	959	...	...	...	20	959	...	...	...	...	544	36,078
	Deodar	770	172,588	410	109,880	540	71,428	1,720	353,896	...	...	...	...	...	...	...	...	...	...	...	1,720	353,896
	Fir, pine, chír, chil, and rai	745	79,066	729	29,318	4,281	469,950	5,755	578,134	187	10,966	...	...	...	187	10,966	...	...	...	...	5,942	589,100
	Miscellaneous	6	240	1,407	14,308	97	4,000	1,510	18,548	1	17	...	...	...	1	17	...	...	...	...	1,511	18,565
	Grand Total, 1882-83	1,898	271,709	3,334	169,608	5,111	561,778	10,343	1,003,095	208	11,942	3,743	44,916	...	3,951	56,858	...	...	...	...	14,294	1,059,953
	Grand Total, 1881-82	2,261	449,619	1,393	223,497	9,141	886,208	12,795	1,559,324	60	2,362	6,182	71,960	...	6,242	74,322	...	...	...	...	19,037	1,633,646

Appendix G.

Yield in produce.

			1881-82.		1882-83.	
			Quantity.	Value.	Quantity.	Value.
				Rs.		Rs.
Dehra Dún.						
Timber	c. ft.	...	140,011	24,300	154,713	28,561
Poles	No.	...	32,657	16,023	4,914	2,512
Saplings	No.	...	...	...	250	61
Bamboos and bánsis	(scores)	...	97,267	5,303	52,364	4,134
Firewood	(maunds)	...	52,010	2,670	50,066	2,672
Charcoal	(ditto)	...	1,863	420	555	100
Minor produce, &c.		...	...	5,689	...	4,921
Grazing dues		...	...	9,827	...	7,341
	Total	...	...	64,232	...	50,302
Saháranpur.						
Timber	c. ft.	...	24,615	7,164	7,572	1,687
Poles	No.	...	3,461	2,240	1,583	720
Saplings	No.	...	3,760	259	10,253	327
Bamboos	(scores)	...	37,508	3,588	20,495	2,561
Firewood	(maunds)	...	134,754	5,634	175,280	7,311
Charcoal	(ditto)	...	3	3	224	28
Minor produce, &c.		...	...	5,740	...	6,298
Grazing dues and sale of grass		...	...	13,922	...	13,026
	Total	...	...	38,550	...	31,908
Jaunsár.						
Timber	c. ft.	...	202,311	24,959	152 448	19,902
Saplings	No.	...	1,818	74	1,131	98
Bamboos	(scores)	...	5,168	181	19,769	403
Firewood	(maunds)	...	34,990	20,637	35,604	20,833
Charcoal	(ditto)	...	374	275	1,149	1,257
Minor produce, &c.		...	...	261	...	327
Grazing dues		...	...	1,063	...	1,382
	Total	...	...	47,450	...	44,202
Tons.						
Timber	c. ft.	...	1,248,151	1,11,012	643,423	63,030
Grazing dues		...	...	321	...	308
	Total	...	...	1,11,333	...	63,338
Total for the Circle.						
Timber	c. ft.	...	1,615,088	1,67,435	958,156	1,13,130
Poles	No.	...	36,118	18,263	6,497	3,232
Saplings	No.	...	5,578	313	11,014	486
Bamboos	(scores)	...	139,943	9,072	92,628	7,098
Firewood	(maunds)	...	221,754	28,941	260,950	30,816
Charcoal	(ditto)	...	2,040	698	1,928	1,385
Minor produce, &c.		...	...	11,690	...	11 546
Grazing dues		...	...	25,133	...	22,057
	Grand total	...	...	2,61,565	...	1,89,750

Appen

Disposal of produce collected

	Sold locally, i.e., not brought to depôt.				Depôt			
					Balance in hand at commencement of year.			
	1881-82.		1882-83.		1881-82.		1882-83.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Dehra Dún division.		Rs.		Rs.		Rs.		Rs.
Timber, cubic feet ...	7,008	3,265	1,529	943	...	...	...	...
Saplings, No. ...	...	...	...	...	...	...	...	...
Bamboos, scores ...	50¼	2	...	...	...	...	...	...
Charcoal, maunds ...	337 (1,348 c. ft.)	155		...	...	...	...	...
Minor produce ...	...	...	...	4	...	...	...	...
Total, Dehra Dún ...	...	3,422	...	947	...	...	...	...
Saháranpur division.								
Timber, cubic feet ...	710	395	47	14	...	...	...	...
Bamboos, scores ...	87¼	60	...	...	...	...	...	...
Firewood, maunds ...	965 (1,930 c. ft.)	76	200 (400 c. ft.)	16	...	...	...	...
Charcoal, maunds ...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...
Total, Saháranpur ...	...	531	...	30	...	...	...	...
Jaunsár division.								
Timber, cubic feet ...	35	35	72	16	17,499	16,402	16,043	*25,466
Firewood, maunds ...	490 (1,470 c. ft.)	97	2,369 (5,492 c. ft.)	541	7,391 (22,949 c. ft.)	4,888	5,133 (17,566 c. ft.)	3,670
Charcoal, maunds ...	157 (471 c. ft.)	235	620 (1,860 c. ft.)	697	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...
Total, Jaunsár ...	...	367	...	1,254	...	21,290	...	*29,136
Tons division.								
Timber ...	1,338	1,116	2,351	1,765	1,072	1,602	† 2,811	†1,656
Total, Tons ...	...	1,116	...	1,765	...	1,602	...	†1,656
Total for the Circle.								
Timber, cubic feet ...	9,086	4,811	3,899	2,738	18,571	18,004	† 18,854	*†27,122
Saplings, No. ...	...	...	...	...	...	...	...	...
Bamboos, scores ...	138	62	...	...	...	...	...	...
Firewood, maunds ...	1,448 (3,400 c. ft.)	173	2,569 (5,892 c. ft.)	557	7,391 (22,949 c. ft.)	4,888	5,133 (17,566 c. ft.)	3,670
Charcoal, maunds ...	494 (1,819 c. ft.)	390	620 (1,860 c. ft.)	697	...	...	...	...
Minor produce ...	...	...	...	4	...	...	...	...
Grand Total ...	...	5,437	...	3,996	...	22,892	...	*†30,702

* Rs. 10,358 added to last year's closing balance.
† 1,800 sleepers, containing 2,400 cubic feet, value

dix H.

by Government Agency.

TRANSACTIONS.							
Brought to depôt.				*Total received in depôt.*			
1881-82.		1882-83.		1881-82.		1882-83.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Rs.		Rs.		Rs.		Rs.
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
4,948	6,314	4,426	4,700	22,447	22,716	20,469	30,166
44,183	32,195	28,461	17,918	51,574	37,083	33,594	21,588
(136,365 c. ft.)		(88,482 c. ft.)		(159,314 c. ft.)		(106,048 c. ft.)	
126	142	496	558	126	142	496	558
(379 c. ft.)		(1,490 c. ft.)		(379 c. ft.)		(1,490 c. ft.)	
...	...	...	...	...	...	...	...
...	38,651	...	23,176	...	59,941	...	52,312
68,583	92,475	62,158	84,718	69,655	94,077	64,969	86,374
...	92,475	...	84,718	...	94,077	...	86,374
73,531	98,789	66,584	89,418	92,102	1,16,793	85,438	1,16,540
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
44,183	22,195	28,461	17,918	51,574	37,083	33,594	21,588
(136,365 c. ft.)		(88,482 c. ft.)		(159,314 c. ft.)		(106,048 c. ft.)	
126	142	496	558	126	142	496	558
(379 c. ft.)		(1,490 c. ft.)		(379 c. ft.)		(1,490 c. ft.)	
...	...	...	...	...	...	...	...
...	1,31,126	...	1,07,894	...	1,54,018	...	1,38,686

on account of re-valuation of stock.
Rs. 900, struck off from last year's closing balance.

Appen

Disposal of produce collected

	Depôt											
	Removed by purchasers from depôt.				*Converted in depôt.*				*Lost or written off as useless.*			
	1881-82.		1882-83.		1881-82.		1882-83.		1881-82.		1882-83.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Dehra Dún division.		Rs.		Rs.		Rs.		Rs.		Rs		Rs.
Timber, cubic feet,	...	...	...	...	...	...	...	...	...	...	...	...
Saplings, No. ...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal, maunds ...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...
Total, Dehra Dún,	...	...	...	...	...	...	...	...	...	...	...	...
Saháranpur division,												
Timber, cubic feet,	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, maunds,	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal, maunds...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...
Total, Saháranpur,	...	...	...	...	...	...	...	...	...	...	...	...
Jaunsár division.												
Timber, cubic feet,	5,780	6,788	5,750	8,168	...	...	...	...	...	...	...	...
Firewood, maunds,	46,269 (141,148 c.ft.)	33,271	31,916 (100,426 c.ft.)	20,622	...	...	...	...	172 (600 c. ft.)	142	31 (107 c. ft.)	15
Charcoal, maunds...	126 (379 c. ft.)	142	181 (543 c. ft.)	203	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...
Total, Jaunsár ...	...	40,151	...	28,993	...	...	...	...	...	142	...	15
Tons division.												
Timber ...	64,415	91,492	62,135	83,735	29	29	...	...	...	...	...	...
Total, Tons ...	...	91,492	...	83,735	...	29	...	...	...	...	...	...
Total for the Circle.												
Timber, cubic feet,	70,195	98,230	67,885	91,903	29	29	...	...	...	...	...	...
Saplings, No. ...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, maunds...	46,269 (141,148 c.ft.)	33,271	31,916 (100,426 c.ft.)	20,622	...	...	...	...	172 (600 c. ft.)	142	31 (107 c. ft.)	15
Charcoal, maunds...	126 (379 c. ft.)	142	181 (543 c. ft.)	203	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...
Grand Total ...	...	1,31,643	...	1,12,728	...	29	...	...	...	142	...	15

dix H.—(*concluded.*)

by Government Agency.

TRANSACTIONS—(*concluded*).

Used by the Department from depôt.				*Total issues from depôt.*				*Balance in hand at close of the year.*			
1881-82.		1882-83.		1881-82.		1882-83.		1881-82.		1882-83.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
...	...	...	...	...	...	...	...	...	...	...	...

Appendix J.

Stock account.

	On hand at commencement of year.										On hand at close of year.										Increase or decrease in value.					
	Dehra Dún.		Saháranpur.		Jaunsár.		Tons.		Direction.		Dehra Dún.		Saháranpur.		Jaunsár.		Tons.		Direction.		Dehra Dún.	Saháranpur.	Jaunsár.	Tons.	Direction.	The Circle.
	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.						
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Timber	...	...	...	...	16,043 (mds. 5,133)	15,108	181,422	1,01,286	..	...	...	...	...	...	14,708 (mds. 1,962)	21,983	177,535	1,09,657	...	...	...	...	+6,875	+8,371	...	+15,246
Firewood and charcoal ...	...	...	...	...	17,566	3,670	...	...	...	...	...	...	...	...	6,483)	1,306	...	...	...	...	...	...	−2,364	...	...	−2,364
Live stock	...	2,800	..	2,000	...	...	...	...	...	2,000	...	3,000	..	2,000	...	...	...	...	..	2,000	+200	...	...	...	...	+200
Dead stock, including buildings and furniture.	...	6,126	...	3,508	...	26,222	...	9,678	...	28,205	...	8,183	...	3,776	...	21,540	...	9,816	...	28,232	+2,057	+268	−4,682	+138	+27	−2,192
Total	...	8,926	..	5,508	...	45,000	...	1,10,964	...	30,205	...	11,183	...	5,776	...	44,829	...	1,19,473	...	30,232	+2,257	+268	−171	+8,509	+27	+10,890

ORDERS OF GOVERNMENT.

No. 947 OF 1883.

RESOLUTION.

REVENUE (FORESTS) DEPARTMENT.

Dated Camp Lucknow, the 20th November, 1883.

READ—

Annual Progress Report of the Administration of the Forest Department in the North-Western Provinces and Oudh, for the year ending 31st March, 1883.

OBSERVATIONS.—The printed reports of the three Circles, *viz.*, the Central, Oudh, and School Circles, into which the forests of the North-Western Provinces and Oudh are divided, were received from the Press considerably earlier than last year. The date fixed for their submission is, however, the 1st August; and as they should be forwarded to the Government of India by the 1st September, the Lieutenant-Governor and Chief Commissioner looks to Conservators to use every endeavour to forward the manuscripts of their reports to the Press in time to admit of the prescribed date being adhered to.

2. Mr. Greig held charge of the Central Circle and Captain Wood of the Oudh Circle throughout the year. Major Bailey resumed charged of the School Circle from Major VanSomeren on the 10th May, 1882.

3. Mr. Greig has, at the commencement of his report, given a short account of the forests of each division of his Circle, showing the principal kinds of trees which they contain, and the manner in which the forests are worked, and the timber and other produce disposed of. This is very interesting and gives exactly what was wanted,—an intelligible account of the capabilities of the forests, and of the system on which they are administered. The Conservator, School Circle, has given similar information for the divisions of his Circle also; and the Conservator, Oudh Circle, should do the same in his next report. It is unnecessary that these descriptions should be yearly repeated; but any circumstances, which have changed the character of the management or the prospects of particular forests, should be explained with reference to the general accounts that have now been given.

4. *Area and boundaries.*—The areas under the control of the Forest Department in each Circle at the commencement and close of the year are reported as follows:—

Circle.	*Area in square miles on 1st April, 1882.*			*Area in square miles on 31st March, 1883.*			Increase or decrease.
	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	
Central ...	1,472	99	1,571	1,473	99	1,572	+1
Oudh ...	1,090	...	1,090	1,090	...	1,090	Nil.
School ...	769	...	769	776	...	776	+7
Total ...	3,331	99	3,430	3,339	99	3,438	+8

Besides the above there are 118 square miles of forests in Bánda not yet brought under the operations of the Forest Act. The changes in area are for the most part nominal only, and do not call for any comment. The area of nearly all forests is subject to correction, as more accurate measurements are made from time to time. In the Central Circle Rs. 3,122 were spent on demarcation work in 1882-83, as compared with Rs. 2,979 in 1881-82. Demarcation of boundaries by pillars is now nearly complete in all divisions, but in some the pillars have yet to be numbered. The number of miles in the boundary in which the demarcation is certified to be in good order will be given in the next report, the information not being available for the present one. In the Oudh Circle boundary work consisted of 70 miles demarcated, 84½ miles of new ditching, 314 posts erected, and 59 miles of Nipál broad boundary cleared. The Conservator hopes to be able to give a detailed statement of the state of the boundaries in his next report. As soon as the demarcation of the Gorakhpur forests has been completed, there should be no doubt as to which are private and which Government forests, and the full investigation which the Conservator thinks is necessary should be made. In the School Circle Rs. 3,534 were spent on boundaries, as against Rs. 2,539 in 1881-82, chiefly in the construction, repairs, and numbering of pillars, and in the clearing of boundary lines. The importance of clear and well-defined boundaries to good forest administration was pointed out in the orders on the last report, and the Lieutenant-Governor and Chief Commissioner trusts that before long the boundaries of all forests may be reported to be in a satisfactory state.

5. *Surveys, working-plans, and annual plans of operations.*—Maps have now been prepared by the Forest Survey Department of nearly all the forests in the three Circles, and the work will be completed in the current year. Details of the plan of operations for each division, and also remarks showing how far the work was carried out, are given for the Central and School Circles. The Conservator, Oudh Circle, has merely given an abstract of the receipts and expenditure under the different budget heads, which does not answer the same purpose; and he should give abstracts similar to those furnished by the other Conservators. The plans for the year have on the whole been carefully adhered to and carried out.

6. *Protection and improvements.*—The results of the prosecutions for breach of forest rules in the year under review and in the preceding year are shown in the following table:—

Circle.		Prosecutions.		Convictions.	
		Number of cases.	Number of persons.	Number of cases.	Number of persons.
Central	1881-82	353	734	331	656
	1882-83	62	Not stated.	50	118
Oudh	1881-82	71	147	54	127
	1882-83	67	Not stated.	55	107
School	1881-82	69	143	50	94
	1882-83	22	Not stated.	12	19

As this year only offences tried by a Magistrate have been shown, the number of prosecutions in the Central and School Circles have considerably fallen off. Besides the above, 386 cases were compounded in the Central Circle, under section 67 of the Forest Act, for Rs. 1,186 ; in the Oudh Circle 3 cases were compounded for Rs. 26 ; and in the School Circle 47 cases were compounded for Rs. 976. The small number of cases compounded in the Oudh Circle, as compared with the other Circles, is so remarkable, that the Conservator should give some close attention to the matter, and should satisfy himself that the forest staff is on the alert. As usual, the great majority of the cases were of a petty nature, such as the unauthorised appropriation of wood and other forest produce, &c.

7. *Fire conservancy operations.*—The area in which protection from fire was attempted, that in which it failed, that successfully protected, and the total cost of protection up to 30th June, 1883, were as follows for each Circle, the figures for 1881-82 being also given:—

Circle.		Area attempted to be protected.	Failure.	Actually protected.	Cost during year.	Total cost to 30th June, 1883.
		Acres.	Acres.	Acres.	Rs.	Rs.
Central	1881-82 ...	256,809	17,221	239,588	16,364	77,200
	1882-83 ...	266,226	6,022	259,204	18,056	95,256
Oudh	1881-82 ...	182,190	32,660	149,530	9,166	39,712
	1882-83 ...	184,064	1,877	182,187	9,012	48,724
School	1881-82 ...	141,854	5,661	136,193	7,593	33,161
	1882-83 ...	150,118	2,962	147,156	7,659	40,820
Total ...	1881-82 ...	580,853	55,542	525,311	33,123	150,073
	1882-83 ...	599,408	10,861	588,547	34,727	184,800

Fire conservancy was more successful than in the previous year, the area actually protected having risen from 525,311 acres to 588,547 acres ; while failure occurred in only 10,861 acres, as compared with 55,542 acres in 1881-82. Thirty-one fires took place in the Central Circle, eight in the Oudh Circle, and 19 in the School Circle, the origin of all of which is described so far as it could be ascertained. The carelessness of workmen in burning the fire traces led to many of the fires, which is scarcely creditable to the officials in charge of the operations. On the whole, however, the Lieutenant-Governor and Chief Commissioner is satisfied with the improvement which the returns of the year witness to in this important branch of forest administration. It will be noted by the Conservator of the Central Circle that the cost of protection in his sub-montane forests is very much higher than in the similar forests of the other Conservators. In the former it is 14½ pies per acre, in the latter 9½ pies; and endeavour must be made to reduce the charges to the point at which they have elsewhere been found sufficient.

8. *Grazing and fencing.*—Rupees 661 were spent on fencing in the Central Circle, as against Rs. 1,542 in 1881-82. The Conservator briefly describes the arrangements in force for grazing in the different divisions. In the Oudh Circle grazing dues realised Rs. 35,167, and the Conservator estimates that about 250,000 head of cattle were paid for. The question

of the grazing dues to be levied in the School Circle is under consideration. The formation of grass preserves, which can supply grazing without any injury being inflicted on the forests, is, as Captain Wood points out, a matter of much importance, and one to which special attention has lately been directed.

9. *Reproductive measures.*—Each Conservator has explained the conditions under which natural reproduction takes place in the forests of his Circle. The great essentials are the protection of the forests from fire and the exclusion of cattle. Where these measures are carried out, reproduction throughout the forests, especially of sál, is generally all that could be desired. Nevertheless, in the Bhinga, Ganges, Sahâranpur, and Jaunsár Divisions the young growth is backward and scanty In the first of these it is reported that there are practically no seedlings at all. In paragraph 28 of his report, Captain Wood examines the reasons of this singular absence of reproduction. He gives the same explanation as Dr. Brandis does in his notes on his last tour in the Oudh forests; and it is evidently necessary, if this forest is to be maintained, to close portions from time to time against grazing. Steps should accordingly be taken by the Conservator for the selection of suitable areas, reporting his proposals for the approval of Government. In none of the other divisions mentioned above is reproduction so completely at a standstill, but in all of them the matter is one which should engage the special attention of the Forest Officers, and on which the Lieutenant-Governor will be glad of more detailed report next year.

10. The area covered by plantations was—in the Central Circle 1,194 acres, in the Oudh Circle 972 acres, in the School Circle 1,445 acres. The additions made to the planted area during the year were in the three Circles respectively 16,181 and 84 acres. The amount expended during the year on the maintenance of the plantations in the several Circles was Rs. 4,379, Rs. 3,667, and Rs. 3,407. The plantations of the Central Circle have been more expensive than the others, but they furnish a large supply of orchard as well as forest trees. The Rânikhet nursery distributed 18,275 forest trees and 9,728 fruit trees during the year, and has 451,119 of the former and 76,000 of the latter still in stock. In the Oudh Circle the plantations are chiefly of sissu, and Captain Wood has given an interesting account of the experiments made to determine the best method of securing the reproduction of this valuable tree in large numbers. The plantations in the School Circle are mostly of deodar and firs and pines. Experiments are being made with a view to ascertaining the correct procedure for re-stocking artificially those areas which require it, and in the hill divisions there is said to be much sowing and planting required, which will shortly be undertaken in the light of the experience gained. The Lieutenant-Governor is glad to see that so much interest is being taken in reproductive measures by the officers of the department as the present reports testify. It is not enough, however, merely to form plantations and to keep them in good order; they must also be properly utilised as far as they furnish the means for the re-stocking of those areas where the natural growth is insufficient.

11. *Construction of communications and buildings.*—The sums expended on the construction of roads, bridges, buildings, wells, &c., were as follows, compared with the sums spent in the preceding year:—

Circle.		Roads and bridges.	Buildings.	Other works.	Total.
		Rs.	Rs.	Rs.	Rs.
Central	1881-82	22,040	7,831	358	30,229
	1882-83	35,996	10,710	89	46,795
Oudh	1881-82	11,796	21,291	2,972	36,059
	1882-83	12,285	16,612	2,641	31,538
School	1881-82	7,663	16,439	524	24,626
	1882-83	8,871	18,192	786	27,849
Total	1881-82	41,499	45,561	3,854	90,914
	1882-83	57,152	45,514	3,516	1,06,182

Each Conservator has shown in detail the works on which these sums were spent, and considerable activity was shown in all Circles in adding to and keeping up existing communications. A summary of the roads and buildings of the Circle, similar to that given by the Conservator, School Circle, should be compiled by the other Conservators also.

12. *Yield and working.*—In the Central Circle 25,898 trees estimated to contain 313,325 cubic feet, were felled by departmental agency in 1882-83, as against 26,064 trees estimated to contain 427,563 cubic feet in 1881-82. In the Oudh Circle 16,942 trees, containing 676,855 cubic feet, were felled in the same way, as against 3,241 trees, containing 150,254 cubic feet, in 1881-82. In the School Circle 1,898 trees, containing 271,709 cubic feet, were felled, as against 2,261 trees, containing 449,619 cubic feet, in 1881-82. In the Central Circle fellings have not been distributed under "selection," "thinnings," and "clearances," as in the other Circles, the Conservator explaining that it would be hopeless to attempt to do so with any approach to accuracy. It would be more convenient, however, if he would give the summary of trees felled in the same form as the other Conservators, which was prescribed in paragraph 2 of G. O. No. 317, dated 27th March, 1883. Trees cut and removed by purchasers, and given away free to right-holders and others, are shown as follows for the three Circles, the figures for the previous year being also given:—

Circle.		*Cut and removed by purchasers.*		*Given away free.*	
		Number.	Cubic feet.	Number.	Cubic feet.
Central	1881-82	41,996	230,037	26,14[illegible]	151,114
	1882-83	19,114	164,659	15,737	157,391
Oudh	1881-82	7,787	222,081	No selection fellings given.	
	1882-83	9,640	246,778		
School	1881-82	1,393	223,497	9,141	886,208
	1882-83	3,334	169,008	5,111	561,778

Including thinnings and clearances, the following table shows the number of trees, &c., of all kinds cut in each Circle during the year, as compared with the previous year:—

Circle.		Number of trees, &c.	Cubic feet.
Central ...	1881-82 ...	94,189	808,714
	1882-83 ...	60,749	635,375
Oudh ...	1881-82 ...	1,036,879	1,234,064
	1882-83 ...	1,325,655	1,986,176
School ...	1881-82 ...	19,037	1,633,646
	1882-83 ...	14,294	1,059,953

In the School Circle the number of thinnings was small as compared with the other two Circles, and there were no clearances, hence the very much higher cubical contents per tree in the School Circle. The total yield of the year, compared with the preceding year, is given as below for each Circle:—

Central Circle.	1882-83.		1881-82.		+ or —	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.
Trees c. ft. ...	529,437	(a)	654,629	(b)	— 125,192	...
Poles and saplings, No. ...	32,318		59,240		— 26,922	
Timber, c. ft. ...	721,715	2,37,495	868,271	2,91,274	— 146,556	— 53,779
Firewood and charcoal, maunds ...	426,775	48,789	339,595	72,250	+ 87,180	— 23,461
Bamboos, scores ...	1,016,547	74,754	1,164,756	80,688	— 148,109	— 5,934
Minor produce ...	...	26,587	...	33,589	...	— 7,002
Grazing dues ...	...	19,555	...	21,376	...	— 1,821
Total ...	...	4,07,180	...	4,99,177	...	— 91,997

(a) and (b).—The value of so much of these trees and poles as were sold during the year is shown under the next item "timber."

Oudh Circle.	1882-83.		1881-82		+ or —	
	Quantity	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.
Timber, c. ft. ...	925,153	3,82,163	372,335	1,37,727	+552,818	+2,44,436
Saplings, c. ft. ...	153,723	15,800	113,058	12,916	+ 40,665	+ 2,884
Poles, &c., No. ...	1,162,833	1,41,597	957,393	48,141	+205,440	+ 93,456
Bamboos, scores ...	12	15	6	8	+ 6	+ 7
Firewood, maunds, ...	188,464	83,656	160,841	8,023	+ 27,623	+ 75,633
Charcoal „ ..	32,172	2,971	32,964	3,249	— 792	— 278
Minor produce ...	...	40,562	...	37,419	...	+ 3,243
Grazing dues ...	...	86,511	...	33,958	...	+ 2,553
Confiscated and drift timber, c. ft. ...	10,676	9,021	1,447	2,689	+ 9,229	+ 6,332
Total ...	...	7,12,396	...	2,84,130	...	+4,28,266

Reducing the whole to cubic feet, the total yield of the Oudh Circle is shown as follows:—

	Cubic feet.
Timber	925,153
Saplings	153,723
Poles	907,300
Bamboos	100
Firewood	188,464
Charcoal	128,688
Total ...	2,303,428

or about 4½ cubic feet per acre of tree forest, as compared with 1,500,000 cubic feet, or about 3 cubic feet per acre in 1881-82. The yield of the other circles might be reduced to cubic feet in the same way :—

School Circle.		1882-83.		1881-82.		+ or —	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.		Rs.
Timber,	c. ft. ...	958,156	1,13,139	1,615,088	1,67,435	— 656,932	— 54,305
Poles,	No. ...	6,497	3,232	36,118	18,263	— 29,621	— 15,031
Saplings,	„ ...	11,614	486	5,578	333	+ 6,036	+ 153
Bamboos,	scores ...	92,028	7,098	139,943	9,072	— 47,315	— 1,974
Firewood,	maunds ...	260,050	30,816	221,754	28,941	+ 39,196	+ 1,875
Charcoal	„ ...	1,928	1,385	2,040	698	— 112	+ 687
Minor produce, &c.	...	...	11,546	...	11,690	...	— 144
Grazing dues	...	...	22,057	...	25,133	...	— 3,076
Total	...	...	1,89,750	...	261,565	...	— 71,815

That is to say, there was a diminution in the outturn of the forests in the Central and School Circles, which was valued at Rs. 91,997 and Rs. 71,815 respectively; and an increase in that of the Oudh Circle, estimated at Rs. 4,28,266. The above figures give a fairly complete account of the yield of the forests for the year under report as compared with the previous year. The entry of trees and timber separately, however, in the summary for the Central Circle, is somewhat confusing; and to preserve uniformity, timber should be shown under one head only, and poles and saplings separately. The estimated value of the produce, and not merely the amount actually realised within the year, which is shown in the receipts, should be given, as has been done by the Conservators, Oudh and School Circles.

13. Selection fellings by Government agency in the Central Circle were principally of sál, sein, chír, and miscellaneous; and the yield of timber was less by 114,238 cubic feet than in 1881-82. This is due to there having been no departmental fellings in the Garhwál Division, where all timber was cut and exported by private enterprise, and to no deodar sleepers having been prepared in the Ganges Division. Selection fellings in the Oudh Circle were almost entirely of sál. Besides the regular sanctioned fellings of 2,500 mature sál trees in the Kheri Division, 14,287 sál trees of damaged or inferior growth were cut for sleeper operations. The Conservator explains that the arrangements entered into for disposing of these to the Patna-Bahraich Railway fell through at the last moment, though other railways have come forward to take them. In consequence of these operations, there was an increase of 526,601 cubic feet in the yield of timber felled by Government agency. Selection fellings by Government agency in the School Circle were principally of firs and pines, oak and deodar, the yield in cubic feet being 283,651 as against 451,981 in 1881-82. The decrease is explained to be due to fewer deodar trees having been felled in the Tons Division, where a large number were in stock at the commencement of the year, and to the average cubical contents of the trees being smaller.

14. The outturn of timber and other produce cut and collected by Government agency is given for each circle as below :—

CENTRAL CIRCLE.

			1882-83.	1881-82.
Timber, c. ft	...	...	174,393	281,469
Firewood, maunds	...	...	92,900	152,418
Charcoal „	...	...	8,066	7,744
Bamboos, Nos.	...	...	1,156,939	1,248,847

OUDH CIRCLE.

Timber, c. ft.	...	...	999,986	183,455
Charcoal, maunds	...	...	66	1,010

SCHOOL CIRCLE.

Timber, c. ft.	...	...	88,065	237,777
Poles and saplings, Nos.	...	...	250	4,809
Bamboos, Nos.	...	...	...	138
Firewood, maunds	...	...	28,257	28,169
Charcoal „	...	...	1,110	405

The outturn of timber in the Central Circle is less by 107,000 cubic feet than in the previous year, which is explained by the Conservator to be due to various causes affecting the demand for timber in the different divisions. The decrease in the outturn of firewood was owing to the absence of troops from Ránikhet in the cold weather. In the Oudh Circle the increased outturn of timber was due to the demand for sleepers already referred to. The diminution in the outturn of timber in the School Circle is accounted for by the purchase, in 1881-82, of the Raiengarh sleepers from Messrs. Winton and Braidwood, to which reference was made in last year's review.

15. The timber and other produce received from forests in sale depôts in 1882-83 and 1881-82 compare as follows :—

CENTRAL CIRCLE.

			1882-83.	1881-82.
Timber, c. ft.	...	...	100,618	175,300
Firewood, maunds	...	...	62,140	120,383
Charcoal „	...	...	8,066	7,744
Bamboos, Nos.	...	...	348,764	262,209

OUDH CIRCLE.

Timber, c. ft.	...	...	1,151,752	263,491

Other receipts were very small.

SCHOOL CIRCLE.

Timber, c. ft.	...	...	66,584	73,531
Firewood, maunds	...	...	28,461	Not stated.
Charcoal „	...	...	496	Ditto.

Depôt sales in the Central Circle were Rs. 71,686 less than in 1881-82, the chief causes of decrease being the sale of timber to the Ganges Canal "locally," and the small demand for firewood at Ránikhet. Little firewood is sold in the Oudh Circle; but owing to the sleeper operations, the amount of timber received in the depôt was unusually large.

16. The following summary shows the timber and other produce removed by consumers and purchasers as compared with the previous year:—

		Central.		Oudh.		School.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.		Rs.
Timber, c. ft. ...	1881-82,	538,092	1,81,072	332,327	99,138	378,136	37,495
	1882-83,	448,506	1,72,857	248,778	Not given	284,883	33,206
Poles and saplings, Nos.,	1881-82,	...	...	...	...	36,867	15,371
	1882-83,	...	...	...	...	18,111	3,657
Bamboos, Nos. ...	1881-82,	22,062,672	75,655	No summary under this head is given for the Oudh Circle.		139,791	9,006
	1882-83,	19,124,788	69,768			92,923	7,096
Firewood, maunds ...	1881-82,	168,416	9,798			191,085	8,628
	1882-83,	276,763	9,741			236,998	10,275
Charcoal " ...	1881-82,	157	52			1,635	467
	1882-83,	2,057	617			818	136
Minor produce ...	1881-82,	111,868	32,298			...	11,684
	1882-83,	300,615	26,352			...	11,546
Grazing dues ...	1881-82,	...	21,418			..	25,733
	1882-83,	...	19,555			...	24,057

There was a remarkable falling off in the demand for "khair" in the Central Circle. "Khair" is used for wooden sugar-mills, and the introduction of the improved iron sugar-mills is said to have affected the demand. In the Central and School Circles the system of marking trees to be felled, and selling them to contractors standing, has been found to be preferable in every way to the departmental agency system, and its further extension is contemplated. Captain Wood, however, is of opinion that it would not answer in Oudh, though the difficulties he anticipates in its working seem to have been successfully overcome in the other Circles.

17. The results of sales of timber, &c., to public departments were as follows :—

Circle.	Amount sold	Cost to department.	Surplus.
	Rs.	Rs.	Rs.
Central	38,904	28,969	9,935
Oudh	1,48,958	54,144	91,494
School	1,07,250	86,965	20,285

In the Oudh Circle Rs. 6,544, and in the School Circle Rs. 4,170, were outstanding at the close of the year. Full details of the sales are given in Form No. 64 appended to each report. The outcome of its transactions with other departments of the administration have been singularly advantageous to the Oudh Circle, but represents a legitimate gain, consisting to a large extent of the price of sleepers supplied to the State Railways at the same rates as those accepted by private companies.

18. The value of timber and other produce at the depôts, and also of live and dead stock, at the commencement and close of the year, is given below for each Circle :—

	Central.			Oudh.			School.		
	At commencement of year.	At close of year.	+ or —	At commencement of year.	At close of year.	+ or —	At commencement of year.	At close of year.	+ or —
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Timber and other produce.	1,02,235	1,33,732	+31,497	3,47,553	3,95,340	+ 47,787	1,20,064	1,32,946	+ 12,882
Live stock ...	15,023	11,994	— 3,029	1,40,080	1,47,197	+ 7,117	80,539	78,547	— 1,992
Dead stock ...	78,954	86,408	+ 7,454						

In spite of the diminished operations, therefore, in the Central and School Circles, the stock at the depôts, already large, was considerably increased.

19 Free grants to villagers and others of timber were as below for each Circle, the figures for the previous year being also given :—

	1881-82.	1882-83.
	Cubic ft.	*Cubic ft.*
Central Circle	151,114	157,391
Oudh Circle	Not stated.	461,716
School Circle	999,175	585,208

The value of the total produce given away in the School Circle is estimated at Rs. 16,719 in 1882-83, as against Rs. 24,414 in 1881-82. The same information might be given approximately for the other Circles also. The Conservator, Oudh Circle, puts the value roughly at over a lakh of rupees.

20. The present returns are a great improvement on those which have been submitted with former reports, and enable the total yield of the forests, and the manner in which it has been disposed, to be seen for the first time. It is, however, desirable that stricter uniformity should be preserved by each Conservator in compiling the different summaries prescribed; but a separate communication will be made on this point hereafter. The chief features of the year are the smaller outturn of timber in the Central and School Circles, and the large fellings of inferior sál trees in Oudh for sleeper operations. The causes which have led to increase or decrease in the demand for the various kinds of timber and other forest produce have generally been sufficiently explained by the Conservators, and will also be noticed in connection with the financial results. The fall in the price of sleepers, referred to in paragraph 58 of the report for the School Circle, as due to the importation of sleepers from Kashmir, seems to indicate that the prices hitherto charged were too high, as there is no reason why private merchants, even though they have no scruple in exhausting any forest to which they can obtain access, should be able to perform the actual work of felling, conversion, and transport to the sale centres at a cheaper rate than the department.

21. The financial results for the year under report compare as follows with those of the three preceding years :—

Circle.	Receipts.				Expenditure.				Surplus.			
	1879-80.	1880-81.	1881-82.	1882-83.	1879-80.	1880-81.	1881-82.	1882-83.	1879-80.	1880-81.	1881-82.	1882-83.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	3,67,60[illegible]	4,57,607	5,04,037	4,14,003	2,32,234	2,62,437	3,04,893	2,86,648	1,35,367	1,95,170	1,99,144	1,27,355
Oudh ...	[illegible],84,92[illegible]	2,81,085	3,11,145	3,84,430	2,45,547	2,17,036	2,21,506	2,88,707	1,39,376	64,044	89,639	95,723
School ...	2,87,142	2,02,642	2,50,911	2,14,970	2,38,818	2,00,101	3,86,813	2,63,669	48,029	2,541	—1,35,902	—48,699
Total ...	10,39,966	9,42,229	10,66,093	10,13,403	7,16,594	6,79,574	9,16,212	8,39,024	3,23,372	2,62,655	1,49,881	1,74,379

The receipts were derived from the following sources, the figures for the previous year being also given :—

Circle.	Timber and other produce removed from the forests by Government agency.		Timber and other produce removed from the forests by consumers or purchasers.		Confiscated, drift, and waif wood.		Forests not managed by Government.		Miscellaneous.		Total.
	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83	1881-82	1882-83.	1881-82.	1882-83.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central	1,77,829	1,07,655	3,19,202	2,98,892	2,145	634	103	109	4,758	6,713	5,04,037 4,14,003
Oudh	1,22,308	2,01,959	1,81,846	1,72,447	4,814	3,901	...	...	2,682	6,123	3,11,145 3,84,430
School	1,28,951	1,13,145	1,05,355	88,301	5,125	4,243	5,521	7,011	5,959	2,270	2,50,911 2,14,970
Total ..	4,29,083	4,22,759	6,06,403	5,59,640	11,584	8,778	5,624	7,120	13,399	15,106	10,66,093 10,13,403

The following tables show the expenditure under the two main heads, (A) conservancy and works, and (B) establishments, as compared with the previous year :—

Circle.		Timber, &c., by Government agency.	Timber, &c., by consumers and purchasers.	Confiscated, drift, and waif wood.	Rent of leased forests.	Livestock, stores, &c.	Communications and buildings.	Demarcations.	Miscellaneous	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
Central...	1881-82,	91,978	17,996	202	4,077	11,566	80,230	37,549	2,994	1,96,812
	1882-83,	72,559	1,810	68[illegible]	4,325	8,601	40,795	26,404	1,323	1,79,985
Oudh ...	1881-82,	68,869	8,623	438	...	7,047	36,059	18,401	1,250	1,40,747
	1882-83,	1,34,910	8,730	339	...	8,953	31,538	19,789	1,043	2,05,302
School ...	1881-82,	2,27,587	5,703	220	8,591	9,544	24,626	15,786	10,458	3,02,465
	1882-83,	97,305	6,113	174	8,501	4,748	27,849	18,971	7,826	1,72,417
Total ...	1881-82,	3,88,434	31,682	860	13,498	28,257	90,915	71,677	14,693	6,40,024
	1882-83,	3,04,774	33,053	581	12,826	22,302	1,08,182	65,164	10,392	5,56,804

B.

Circle.	Salaries.		Travelling allowances.		Contingencies.		Total.	
	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.	1881-82.	1882-83.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central	93,544	94,107	9,716	9,068	5,021	4,388	1,08,081	1,07,563
Oudh	66,706	66,743	12,675	12,196	4,378	4,456	83,759	83,405
School	69,405	74,660	10,921	11,503	4,022	5,089	84,348	91,252
Total ...	2,29,455	2,35,510	33,312	32,767	13,421	13,943	2,76,188	2,82,220

The receipts and expenditure under the three great heads—

I.—Departmental timber operations,

II.—Other revenue,

III.—Formation, protection, and improvement of forests—

compare as follows in 1881-82 and 1882-83 :—

Circle.		Departmental timber operations.			Other revenue.			Formation, protection, and improvement.	Net surplus
		Receipts	Charges.	Surplus.	Receipts.	Charges	Surplus	Charges.	
		Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.
Central...	1881-82 ...	1,77,828	1,49,834	27,994	3,26,209	64,647	2,61,562	90,412	1,99,144
	1882-83 ...	1,07,654	1,33,355	—25,701	3,06,349	70,916	2,35,433	82,377	1,27,355
Oudh ...	1881-82 ...	1,22,951	89,582	33,369	1,88,194	62,822	1,25,372	72,102	86,639
	1882-83 ...	2,02,863	1,59,127	43,736	1,81,567	59,414	1,22,153	70,166	95,723
School ...	1881-82 ...	1,28,951	2,76,559	—1,47,608	1,21,960	33,809	88,151	76,445	—1,35,902
	1882-83 ...	1,18,145	1,44,358	—31,213	1,01,825	25,569	76,256	93,742	—48,699
Total ...	1881-82 ...	4,20,730	5,15,975	—86,245	6,36,363	1,61,278	4,75,085	2,38,959	1,49,881
	1882-83 ...	4,23,662	4,36,840	—13,178	5,89,741	1,55,899	4,33,842	2,46,285	1,74,379

The aggregate receipts for the three Circles in the year under report were thus Rs. 10,13,403, as compared with Rs. 10,66,093 in 1881-82. The aggregate expenditure was Rs. 8,39,024, as compared with Rs. 9,16,212 ; and the aggregate net surplus was Rs. 1,74,379, as compared with Rs. 1,49,881 in 1881-82, Rs. 2,62,655 in 1880-81, and Rs. 3,23,372 in 1879-80. The aggregate net surplus thus shows an increase of Rs. 24,498 over the preceding year, but is much below that of 1880-81 and 1879-80. In the Central Circle, where receipts fell off by nearly a lakh, the surplus has decreased by Rs. 71,789. In the Oudh Circle both receipts and expenditure rose considerably, and there is an increase in the surplus of Rs. 9,084. In the School Circle receipts were Rs. 35,941 less, but the expenditure decreased by Rs. 1,23,144 ; and though there is again a deficit of Rs. 48,699, the results of the year show an improvement of Rs. 87,202. The financial results as a whole are, therefore, slightly more favourable than last year, but the surplus fell far short of the regular estimate, in which it was put so high as Rs. 2,50,000.

22. A concise notice of the leading features of each division was given in the last review, which it is unnecessary to repeat again. The

surplus of the Central Circle was reduced by the falling off in the surplus of the Ránikhet, Kumaun and Ganges Divisions of Rs. 12,619, Rs. 57,464, and Rs. 21,797 respectively. The decrease in the Ránikhet Division was due to the absence of troops from the station in the winter, as already noticed, and the consequent falling off in the demand for firewood. The decrease in Kumaun was due to the greatly reduced sales of khair and of timber generally from the depôts. From the remarks made by the Conservator in paragraph 111, it would seem that an opportunity of disposing of a large quantity of timber was unfortunately lost, and hence the unfavourable results of the year. The value of timber in stock is said, however, to have increased by Rs. 42,391, and this should be disposed of in the current year. The system of allowing felling by private enterprise, instead of by departmental agency, which has been found to work so successfully in Garhwál, is to be introduced into this division also. The decrease in the Ganges Division was due to no sleepers having been prepared, and to timber not having been sold in time to appear in the accounts of the year. Expenditure was also increased by an officer on higher pay having been in charge. The results of the Naini Tal and Garhwál Divisions are satisfactory, the surplus of the former having increased by Rs. 7,377, and of the latter by Rs 8,523. In the case of Garhwál the Conservator attributes the increase to the system of felling by private enterprise having now become fully developed.

23. Turning to the Oudh Circle, the Pilibhít Division and the Bhira Sub-division show a considerable deficit. For both the deficit last year was Rs. 16,495, and it has now increased to Rs. 23,881. There is no timber available for sale as yet, and the only revenue derived is from the sale of firewood, minor produce, &c., and grazing dues. The works of improvement are said to be nearly finished, and it is hoped that if ever a railway between Pilibhít and Sitapur is opened, the forests will show a surplus. Kheri shows a considerably larger surplus on account of the sleeper operations : a large number of sleepers have yet to be sold in this and the Bahraich and Gorakhpur Divisions, the proceeds of which will go to swell the receipts of the current year. These sleeper operations being of an abnormal nature, somewhat obscure the true financial results of the year as compared with previous years ; and the Conservator should be careful in his next report to show distinctly how much of the increased revenue has been obtained from the sale of sleepers, as distinguished from the regular annual yield of the forests. Very little timber was felled in the Gonda Division, where receipts slightly fell off, and expenditure increased by nearly Rs. 3,000, the result being a decrease in the surplus of Rs. 4,651, the causes of which are not explained. The financial results of the current year for the Oudh Circle should be very favourable if all the sleepers prepared are disposed of as is anticipated, and the purchase-money realised.

24. The School Circle again shows a deficit, though there is an improvement of Rs. 87,203 in the net results as compared with the previous year. This, however, is more apparent than real, as the expenditure

last year included the payment of the purchase-money to Messrs. Winton and Braidwood for the sleepers taken over from them. The investment is said not to have turned out well, but it is hoped the sleepers will all be disposed of in the current year. A complete history of the transaction, showing the reasons which led to the purchase being made and the actual financial results, should be given separately. The receipts of the Circle fell off by Rs. 35,941, the chief causes being the sale of fewer sleepers in the Tons Division, the absence of troops from Chakráta in the winter, and the stoppage of the felling of green trees in the Saháranpur Division. Less was also realised by grazing dues, and Rs. 4,480 realised by the sale of box-wood in England were not credited in the accounts. There was a falling off of Rs. 24,238 in the surplus of the Dehra Dún Division, and of Rs. 10,804 in the surplus of the Saháranpur Division. It would seem that the forests of these divisions have been overworked and require rest, while the expense of protective measures has to be met, so that the financial prospects for some years are not likely to be good. The Jaunsár Division again shows a deficit, which is, however, nearly all nominal, being covered by amounts due for the sale of box-wood and from the Commissariat Department. The Conservator explains that the revenue of this division depends almost entirely on the requirements of the Public Works Department and Commissariat Department at Chakráta; and until the deodar forests of the Dháragádh can be worked, a yearly deficit is expected. The Tons Division also again shows the deficit, though of Rs. 2,413 only, as against Rs. 1,21,740 in 1881-82. The purchase-money of the sleepers bought from Messrs. Winton and Braidwood was shown on the expenditure side of the accounts of this division last year, and the proceeds of their sale should appear in the current year's receipts. The Conservator has explained in paragraph 58 the causes which keep the receipts of the School Circle so low. In the hill divisions where plenty of timber is available there is no local demand, and the price obtainable will not repay the cost of carriage to the plains. Deodar sleepers are exported, but the price of these has fallen in consequence of the competition of sleepers brought into the market from Kashmír and private forests. In the Dún and Saháranpur forests, where timber could be readily sold, all mature trees have been cut, and some time must elapse before a new growth can spring up. The charges on account of the Forest School at Dehra materially affect the results of the Circle as a whole, and render it difficult to show a surplus. The whole question of the future continuance of the School, and of the scale on which it is to be conducted in future, is under separate consideration. In future reports it should be stated what has been the cost of the School during the year, as distinguished from the cost of management of the forests proper.

25. In noticing the financial results of the year, Conservators have for the most part dealt with the figures under the heads of departmental timber operations and other revenue. If, however, the system of felling by private enterprise is to be extended, the results under these heads for different years will not admit of exact comparison. It would give a clearer idea of the causes which have affected the financial results of the year if

receipts were noticed under (1) sales of timber as a whole, (2) sales of other items of forest produce, *i.e.*, the whole receipts on account of timber and other produce should be considered together, such explanations of the details being given as may seem called for. And in elucidation of the question whether felling should be carried out by departmental or by private agency, a comparison of the estimated profit under both systems would be interesting, if the necessary data can be worked out.

26. The outstandings and liabilities on account of contractors and disbursers are shown in the following table :—

Circle.	*Department debtor.*			*Department creditor.*			*Balance due.*	
	At commencement of year.	Recovered during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department outstanding	By department liabilities.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	3,722	42,869	46,591	10,821	45,157	55,978	9,387	...
Oudh ...	105	3,25,797	3,25,902	36,047	3,58,513	3,94,560	68,657	...
School ...	...	1,55,686	1,55,686	11,919	1,59,762	1,71,682	16,001	5

The revenue received and outstandings on account of revenue were as follows :—

Circle.	Outstandings at commencement of the year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to department at close of year
	Rs.	Rs.	Rs.	Rs.	Rs.
Central—Timber sales, grazing dues, minor produce, &c.	2,471	4,12,064	4,14,535	4,14,262	273
Oudh	31,717	3,99,550	4,31,267	3,87,143	41,124
School	9,749	2,18,329	2,28,078	2,19,869	8,209

The outstandings in the Oudh Circle are large, but sanction has lately been accorded to the remission of old arrears of grazing dues in the Bahraich Division, with which the accounts have long been cumbered.

27. The most important event of the year as regards the departmental establishment was the re-organisation of the superior staff, with effect from the 3rd September, 1882, in accordance with the Notification of the Government of India, dated 20th November, 1882, by which a considerable measure of promotion was given to the officers of the department. Little else of special interest occurred. The acquisition of the forest lands in Bánda was finally completed for the present, though an area of some 21,000 acres still remains to be acquired, which the owners refuse to part with on reasonable terms. The two great essentials of forest administration are (1) to ensure the protection and reproduction of the forests, and to stimulate as much as possible the growth of the more valuable kinds of timber, (2) to realise as much revenue as can be obtained without unduly exhausting the forests, or discounting the future. Whether the first point is being sufficiently attended to can best be determined from an inspection of the actual state of the forests themselves; and the Lieutenant-Governor and Chief Commissioner understands that Conservators are pushing on reproductive measures wherever they

are required. Sir Alfred Lyall hopes soon to be able to visit the principal forests himself. As to the second point, the financial results are again somewhat disappointing. It would seem that the supply of mature trees in many forests has been exhausted for the present, and the revenue now is considerably below that of a few years ago. Another cause of low receipts is the difficulty in finding a suitable market for the disposal of forest produce, and Conservators should pay especial attention to the arrangements now in force for the sale of timber and other produce, so as to open and develop trade, and to afford every facility to purchasers. The extension of light railways throughout the provinces should considerably stimulate the demand for fuel, besides opening up communications and lessening the cost of transport. The competition of timber from private forests, which is said to have lowered prices, must, if the forests are being overworked, soon cease. A brief review of the timber trade, and the rise or fall in prices for the kinds most in demand at the principal trading centres during the past few years, would be most interesting, and throw considerable light on the future prospects of the department.

28. In all three Circles there is said to be pressing need for revision of establishments, and the question is to be taken up for the Central Circle by the Inspector-General of Forests in concert with the Conservator during the ensuing cold weather. The Lieutenant-Governor and Chief Commissioner is glad to observe that the superior staff and the officials of the department generally are again reported to have laboured zealously and efficiently during the year. The reports now submitted are in every way a very great improvement on those for former years ; and when uniformity in tabulating the returns for all three Circles has been secured (regarding which orders will issue separately), it is hoped that future reports will leave little to be desired. In conclusion, the acknowledgments of Government are due to all three Conservators for the continued efficient administration of the Circles under their charge, and for the pains they have taken to place on record in their reports a clear and full account of all the transactions of the year, and of the circumstances by which the results and forest administration generally have been affected.

J. WOODBURN,

Secy. to Govt., N.-W. P. and Oudh,
in the Revenue (Forests) Department.

ORDERED that a copy of the above Resolution (with copy of report) be forwarded to the Conservators of Forests, Central, Oudh, and School Circles, for information and guidance.

Ordered also that copy (with copy of report) be forwarded to the Commissioners of the Meerut, Benares, Jhánsi, Rohilkhand, Allahabad, Kumaun, Sitapur, and Fyzabad Divisions, for information.

Ordered also that copy (with copy of report) be forwarded to the Comptroller-General, Calcutta, for information.

Ordered also that copy (with copy of report) be forwarded to the Inspector-General of Forests, for information.

By order, &c.,

J. WOODBURN,

Secy. to Govt., N.-W. P. and Oudh,
in the Revenue (Forests) Department.

CENTRAL CIRCLE REPORT.

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CENTRAL CIRCLE.

N.-W. PROVINCES AND OUDH.

GOVERNMENT N.W.P. & OUDH 1884

ANNUAL PROGRESS REPORT

OF

FOREST ADMINISTRATION

FOR THE YEAR ENDING 31st MARCH, 1884.

By G. Greig, Esq., Conservator of Forests, Central Circle.

INTRODUCTION.

DIVISIONS AND OFFICERS IN CHARGE.

The following table shows the Divisions of the Central Circle and the officers who had charge of them at the commencement and at the close of the year.

Mr. Greig held the post of Conservator throughout the year, except for three months, from the 5th August to the 9th November, when he was on privilege leave.

The Officiating Conservatorship was held by Mr. O'Callaghan up to the 28th of September, the date of his retirement from the service, and by Mr. Bagshawe for the remainder of the period.

Divisions.	*Names of Officers in charge.*	
	At commencement of the year.	At close of the year.
Naini Tal ...	Mr. Braidwood, Deputy Conservator, 4th grade.	Mr. Braidwood.
Ránikhet ...	Mr. Braidwood ...	Mr. Brereton, Deputy Conservator, 1st grade.
Kumaun ...	Mr. O'Callaghan, Deputy Conservator, 1st grade.	Mr. Wilmot, Deputy Conservator, 4th grade.
Garhwál ...	Mr. Bryant, Assistant Conservator, 1st grade.	Mr. Bagshawe, Deputy Conservator, 2nd grade.
Ganges ...	Mr Hobart-Hampden, Assistant Conservator, 2nd grade.	Major Campbell, Deputy Conservator, 3rd grade
Jhánsi ...	Assistant Commissioner ...	Assistant Commissioner.
Lalitpur ...	Mr. Story, Assistant Commissioner ...	Colonel Liston, Deputy Commissioner.
Banda ...	Mr. LaTouche, Collector ...	Mr. Dess, Collector.

The above shows that the first five Divisions were under charge of officers of the Forest Department and the three last under the district civil officers.

CHANGES OF GAZETTED OFFICERS.

2. There were a great many changes. Mr. Braidwood was on privilege leave from the 25th August to the 30th November, and during that time Mr. Bagshawe held charge of the Naini Tal Division in addition to his other duties.

The Ránikhet Division was held by Mr. Braidwood up to the 18th August, by Mr. Campbell (from the Oudh Circle) from the 19th August to the 20th October, by Mr. Bryant from the 21st October to the 11th February, and by Mr. Brereton from the 12th February to the close of the year.

The Kumaun Division was held by Mr. O'Callaghan up to the 31st August, by Mr. Campbell from the 1st September to the 20th October, by Mr. Bryant from the 21st October to the 5th November, and by Mr. Wilmot from the 6th November to the close of the year.

The Garhwál Division was held by Mr. Bryant up to the 31st May. Mr. Bagshawe took charge on the 1st June and held the Division up to the close of the year.

The Ganges Division was held by Mr. Hobart-Hampden (from the School Circle) up to the 4th June, by Mr. Brant from the 5th June to the 13th October, and by Major Campbell from the 14th October to the close of the year.

SHORT DESCRIPTIONS OF DIVISIONS AND MODE OF WORKING.

3. Under this head there is nothing to add to the information given in last year's report for any of the Divisions except Kumaun and Ganges.

4. **Kumaun Division.**—In para. 5 of last year's report a description was given of the timber works system in this Division, and towards the end of para. 6, after describing the system of timber works in the Garhwál Division, Conservator wrote—"next season I hope to see the same system adopted in Eastern Kumaun." This was carried out most successfully by the Deputy Conservator. Over 35,000 cubic feet of sál timber were cut and exported by merchants in the Nindhaur valley, and there were no departmental timber works at all in Eastern Kumaun. Out of 110,000* cubic feet of timber cut in this Division during the year 90,000 cubic feet were prepared and exported by merchants under what we call the Garhwál system and only 20,000 cubic feet by departmental agency, and the Garhwál system was found to be so superior in every way that it has been decided to have no departmental timber work at all next season in the Kumaun Division.

*Eastern Kumaun, 35,000 cubic feet.
Western „ 75,000 „

5. **Ganges Division.**—The Garhwál system has also been introduced into this Division. There was no departmental sawing during the year to meet indents, but 118 sein trees were cut up and exported by merchants, though the transaction does not appear in the accounts for 1883-84, as the royalty was not paid until April, 1884. Some poles of various kinds of trees which the canal authorities consider not good enough for their works were allowed to be cut and exported by merchants; but this transaction also does not appear in the accounts for the year for the same reason as is given regarding the sein timber. A consignment of 980 cubic feet of boxwood from the leased forests was sent to England, as contemplated in para. 7 of last year's report. It was stated in para. 7 of last year's report that "some deodar trees" had been sold to the late Mr. F. Wilson at Rs. 15 per tree. The number was 924. The lease of the Tiri-Garhwál forests has expired, and it is not yet known what decision has been come to by Government regarding its renewal.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

6. The following abstracts show the area of the "reserved," "protected," and other Government forests and the changes during the year. Full details are given in Form No. 49 :—

Reserved Forests.

Divisions.	Area on 1st April, 1883.	Added during the year.	Excluded during the year.	Area on 31st March, 1884.
	Square miles.	Square miles.	Square miles.	Square miles.
Ránikhet	7	...	...	7
Kumaun	636	...	...	636
Garhwál	444	...	...	444
Ganges	204	...	...	204
Jhánsi	*37	...	† 43 acres.	37
Lalitpur	‡146	...	...	146
Total ...	1,474	...	43 acres.	1,474

* The area of the Jhánsi forests was, on the 1st April, 1883, 23,613 acres (see Form No. 49 for 1882-83). This amounts to nearly 37 square miles, whereas in last years' report it was given as 38, which was an error of calculation.

† 42 acres 3 roods and 10 poles were taken up for the Jhánsi-Manikpur Railway, the compensation paid for which was Rs. 2,038-7-5.

‡ Here, again, is an error of calculation. The area is 93,145 acres, which amounts to 146 square miles. Both these errors are due to adding up the figures in the column "equivalent in square miles" instead of dividing the total acres by 640.

Protected Forests.

Divisions.	Area on 1st April, 1883.	Added during the year.	Excluded during the year.	Area on 31st March, 1884.
	Square miles.	Square miles.	Square miles.	Square miles.
Naini Tal	36	...	...	36
Ránikhet	59	...	...	59
Lalitpur	4	...	...	4
Total ...	99	...	...	99

All the areas are subject to correction, except those of the Naini Tal Division. Bánda forests not yet brought under the operation of the Forest Act.

How held.	Area on 1st April, 1883.	Added during the year.	Excluded during the year.	Area on 31st March, 1884.
	Square miles.	Square miles.	Square miles.	Square miles.
Acquired inside the forest line ...	84	...	...	84
Acquired outside the forest line ...	1	...	...	1
Under Government control, 45 per cent. of profits to owners	33	...	...	33
Total ...	118	...	...	118

2.—Boundaries.

7. **Naini Tal Division.**—The Deputy Conservator reports that during the year 5 outer boundary pillars and 186 village boundary pillars were repaired at a cost of Rs. 72-10-0, and that one outer pillar and 76 village pillars, which were washed away by the floods in 1880, cannot be rebuilt owing to erosions of land that year and landslips which have occurred since. The numbering of the pillars has again been forgotten, but the Deputy Conservator promises to attend to this at once.

8. **Ránikhet Division.**—The combined length of the boundaries of all the forests is 246 miles, and they are demarcated by 639 pillars, all of which are said to be in good order; 88 miles of these boundaries are further demarcated by fences or cleared lines, and along the remaining 158 miles trees are being blazed and marked with white paint, but this is not yet completed. Nothing was spent on demarcation work during the year 1883-84.

9. **Kumaun Division.**—According to information supplied by the Forest Survey Office the length of boundaries in this Division is as follows:—

Outer boundary	371	miles.
Inner boundary (portions open to rights)	267	"
Boundaries of village lands within forests	125	"

All these boundaries are reported as completely demarcated, the pillars numbered and in good repair. Rs. 57 was spent on repairing pillars during the year.

10. **Garhwál Division.**—In February, 1884, Mr. Bryant, Assistant Conservator, was deputed to accompany the Extra Assistant Commissioner of Garhwál for the purpose of settling the few disputed boundaries of this Division. They settled all disputes and submitted a joint report, but their decisions have not yet been confirmed by the Senior Assistant Commissioner. Mr. Bryant also visited all the pillars of the outer boundary of the village lands within the forests and of the forests open to rights. He checked them, making corrections where necessary, and he let in blocks of stone bearing the serial numbers, which were cut in figures 2 inches high, ½ an inch wide, and ½ an inch deep, and painted black.

The Deputy Conservator was not able to give the length of the boundaries this year, but practically they are all settled and properly demarcated.

11. **Ganges Division.**—The Deputy Conservator reports as follows :—"The forest of Chandi is being demarcated and will, it is hoped, be soon completed, either this season or early in next, under the Collector of Bijnor. The other boundary pillars are in the same state as last year. Being new to the Division and having a great deal of work in hand, I could not find time to go round the boundaries myself." This report cannot be considered satisfactory. During May, 1884, an Assistant Conservator was deputed to examine and report on all the boundaries of the Bhábar forests of this Division pillar by pillar, and as the new forest survey maps are expected shortly, we may reasonably hope that the Deputy Conservator will be in a position next year to report on his boundaries in accordance with the instructions contained in para. 4 of the Local Government review on the annual report for 1882-83.

12. **Jhánsi Division.**—The boundaries of these forests are reported to be properly demarcated. The 102 acres acquired by exchange in the Sukwan Dukwan forest, and mentioned in para. 18 of last year's report, has been demarcated by the erection of 10 masonry pillars.

13. **Lalitpur Division.**—The boundaries are reported to be fully demarcated.

14. **Bánda Division.**—The boundaries are fully demarcated. Details were given in para. 20 of last year's report, and there were no alterations or additions during the year.

15. It would be impossible to give, with any approach to accuracy, "the number of miles in the boundaries in which the demarcation is certified to be correct," as required by para. 3 of Resolution No. 100, dated 2nd February, 1883. All the boundaries have been described and demarcated in such a way that the Forest Survey Department has been able to survey them on its new maps, and therefore there is a perfect record of them which can easily be followed on the ground. As a matter of fact the boundaries *are* demarcated, though it cannot be reported that the demarcation is complete, because some of the kutcha pillars have not yet been replaced by pucca masonry ones, some pillars are not in their proper positions, some are not of the right size and shape, and many are either not numbered at all or are not numbered correctly or durably. The inaccessibility of the northern boundary of the Bhábar forests is the main reason why the demarcation has taken so long to complete, and there have been many little points to settle with the district officers which have caused delay.

CHAPTER II.

SURVEYS, WORKING-PLANS, AND ANNUAL PLANS OF OPERATIONS.

16. **Naini Tal Division.**—As stated in paras. 22 and 23 of last year's report, we have 4 inch=1 mile maps of the Division, and the forests have been valued by the Working-plan Branch. But although the valuation was completed two years ago, no working plan has been submitted yet.

17. Here follows the annual plan of operations for 1883-84, with notes showing how far it was carried out :—

	Sanctioned plan.	*How far carried out.*
(a)	Boundary pillars to be repaired and numbered.	All repaired except those the sites of which have been washed away. Numbering not done.
(b)	About 20,000 cubic feet of timber to be sawn and carried to depôt.	8,790 cubic feet sawn and 11,099 cubic feet carried to depôt. The deficiency was due to the contractor failing to bring sawyers.
(c)	About 14,000 maunds fir fuel and 7,000 maunds hard-wood fuel to be prepared and carried for the Commissariat Department.	15,709 maunds fir fuel from sawing refuse, 3,008 maunds hard-wood fuel from fallen trees and 2,310 maunds from selection fellings.

(*d*) About 5,000 maunds charcoal to be made in the Bhábar and brought to depôt. About 500 maunds of oak and 500 maunds of fir charcoal to be made in the Naini Tal forests.	154 maunds Bhábar charcoal disposed of during the year. 416 maunds made from oak (standing trees) and 242 maunds from fallen fir in the Naini Tal forests. The falling off was due to large quantities of charcoal having been brought in from private forests.
(*e*) Existing roads to be kept in repair, and a new road to be made from the Almora road to Bhowoli village *viâ* Jhábar.	This was done. A new road 49 chains in length was also made near Maulani.
(*f*) Buildings to be repaired Roof of Broughton timber sheds and China chauki to be painted.	Done.
(*g*) *Plantations.*—Transplant ash. Plant 650 pinus excelsa and 1,000 deodár on Cheena.	Done. 653 pinus excelsa from Ránikhet planted; deodár not planted.
(*h*) Plant ash on the bare slopes on China.	2,580 planted.
(*i*) Plant 600 deodar at Chorsa.	Done.
(*j*) Weeding, hoeing, and shading as usual.	Ditto.
(*k*) The same forests which were protected from fire last year to be again protected.	Ditto.

18. **Ránikhet Division.**—Three map sheets have been received from the Forest Survey Department during the year and the remainder are expected shortly.

The Working-plan Branch valued the most important forests of this Division in 1881, but no working plan has yet been received.

19. The following is an abstract of the sanctioned annual plan of operations for 1883-84, with notes showing the extent to which it was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) Fences to be kept in repair and boundary lines to be cleared where necessary.	Fences repaired and boundary lines cleared in the forests of Chilianao, Karchuli, and Chaubattia.
(*b*) Roads to be kept in repair.	Done.
(*c*) Dalmoti hut to be altered and a cook-room built and existing buildings to be repaired.	Ditto.
(*d*) The forests which were protected from fire last year to be again protected. Also to extend protection over the whole of the Seoni forest.	Done. But the Deputy Conservator reports that he was not able to arrange for the extension in Seoni. He has, however, attempted to protect the Chilianao forest.
(*e*) Fuel to be supplied to the Commissariat Department from fallen, broken, dry, and twisted trees, and from trees cut, on fire, and boundary lines, somewhat as follows :—	

	Maunds.		*Maunds.*
From reserved forest ...	26,600	... ...	9,062
„ Seoni (protected) ...	44,000	... ...	18,403
„ Kathalakh ...	15,000	... ...	9,075
„ Padholi ...	6,000	... ...	4,327
„ Karchuli ...	3,000	... ...	16,611
„ Chilianao ...	5,000	... ...	13,403
„ Chaubattia ...	10,000	... ...	8,102
		From Ganiadeoli ...	2,670
	1,09,600		81,653

(*f*) Timber trees to be supplied on indent and contractors to be allowed to sell timber in the bazars.	Done.
(*g*) Weekly passes for grass at 8 annas each to be given until the grass contract is ratified.	Ditto.
(*h*) *Plantation work.*—Fill vacancies and open spaces at Jakdeo with horse and sweet chestnuts and walnuts.	Not done. The winter was too dry for planting.
Plant avenues at Querali with ash and a few deodar.	Not done. 300 pot-raised acacias were planted.
Plant a few deodar at Goshkandi and sow bare patches with pinus longifolia seed.	No planting done. The pinus longifolia seed was sown.
Plant a few sweet chestnuts and deodar along the road from the dák bungalow to Dalmoti.	79 sweet chestnuts planted at Tangra.

20. **Kumaun Division.**—Twelve map sheets were received from the Forest Survey Department during the year and 11 sheets are still wanting to complete the Division. The forests are still being worked on the plan prepared by the Inspector-General of Forests in 1881. Nothing has yet been received from the Working-plan Branch.

21. The following is an abstract of the sanctioned annual plan of operations for 1883-84, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) Boundary pillars and fences to be kept in repair.	Done.
(*b*) Protect from fire the same areas which were under protection last year, and adopt the Garhwál system of clearing fire-lines.	Done. The Ratarao block in the Nandhour forest also attempted. Garhwál system adopted.
(*c*) *Plantation.*—Five acres at Chopra to be sown with sál if seed is procurable.	Ground prepared and will be sown if seed is procurable.
Rámpur and Laiti to be kept under protection, but not to be added to.	Done.
(*d*) Existing roads to be kept in repair.	Ditto.
(*e*) A new road to be made from Chorgalia to Lalkua.	Not made. District officer objected; 6 miles and 41 chains of new cart road from Mohan to Kumoria and from Dhela to Shikári Dera were constructed; also 28 miles and 72 chains of paths.
(*f*) Buildings to be repaired.	Done.
(*g*) Creepeers and mainphal to be cut in West Kotah.	Done in compartment No. 2.
(*h*) The three sample plots to be protected from fire and the half-yearly measurements to be taken and recorded.	Done. Also 2 acre-plots prepared at the Inspector-General's request in the Chorgalia closed block.
(*i*) Two pucca wells to be made at Phulon and Patrámpur and a new camping-ground to be cleared at Jirna Jali.	The wells are nearly finished. The camping-ground was prepared.
(*j*) *Timber works.*—No departmental sawing in Eastern Kumaun; trees to be marked and exporters allowed to cut and export them.	35,457 cubic feet of timber removed by exporters.
In Western Kumaun departmental sawing to be curtailed and exporters encouraged.	20,000 cubic feet prepared departmentally in blocks I.9 and II.3 Kotah. 54,645 cubic feet removed by exporters from blocks Nos. I. and III. Dhulwa.
200 sál trees for the Nawáb of Rámpur—free grant.	Removed by the Nawáb.
Exporters to use the saw for logging	Enforced as far as practicable.
(*k*) Every forest to be cleared of creepers when work in it is finished.	Attended to.
(*l*) The 102 compartments of Chilkia and West Kotah to be traced on the new maps.	Done on all the sheets which have been received from the Forest Survey Department.

22. **Garhwál Division.**—No maps have been received from the Forest Survey Department during the year. Six sheets are wanting to complete the Division.

23. The following is an abstract of the annual plan of operations for 1883-84, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) Pillars of the outer boundary, the boundary of village lands, and of the portions open to the exercise of rights to be brought up to standard shape and to be numbered.	Done. Except that the pillars round the Dharon and Jhirna village lands have not been numbered owing to the maps not having been received.
(*b*) Protection from fire to be attempted over the same areas as in 1882-83.	Done.
(*c*) Interior fire lines in South Patli Dún to be reduced.	Ditto.
(*d*) The north-western outer fire-line of Sisham Khata to be made into a bridle-path.	Ditto.
(*e*) Rehar fire-lines to be improved and opened out	Ditto.

Sanctioned plan.	*How far carried out.*
(*f*) Submit proposals for extending the protected area in 1884-85.	It has been decided not to increase the area at present.
(*g*) Continue creeper-cutting and prepare plan for future work.	Done.
(*h*) The Dhimki and Chakalpani section of the Kotri and Patli Dúq road to be widened from 6 to 14 feet, Rs. 2,000.	A better line has been marked out and the road will be made next season.
(*i*) The Delidunga section of the Goujera timber works roads to be widened from 4 to 14 feet 2½ miles, Rs. 2,000.	Done. Cost Rs. 1,992.
(*j*) The northern boundary patrolling path to be commenced.	Unavoidably postponed.
(*k*) Dhikola house to be completed and furnished.	Nearly done; Will be finished by June, 1884.
(*l*) Bogsar house to be repaired.	Postponed till next season.
(*m*) Office room, store-room, and chauki to be built at Kálágarh.	Not done during the financial year, but nearly completed by end of May, 1884.
(*n*) Build a small house in Behar if possible.	Postponed till next season.
(*o*) Search for a site for a well at Murghati.	Site found; will be made next season.
(*p*) A maximum of 50,000 cubic feet of sál and as much sein as can be sold to be exported from selection fellings in the Mondhal working circle.	Fellings in II., 11, 10, 4, 5, 6—56,877 cubic feet of sál and 4,819 cubic feet of sein exported.
(*q*) Dry sál, &c., to be exported from all forests up to 1st February, and from all except those under fire conservancy up to 1st June.	Done.
(*r*) Bamboo-cutting prohibited in Bilot block. Unrestricted in other forests, except that four uninjured growing shoots should be left in every clump.	Ditto.
(*s*) Enquire into the demand for khair churans.	The demand has fallen owing to the introduction of iron sugar-mills.

24. **Ganges Division.**—The Forest Survey Department completed the survey of the Bhágirathi leased deodár forests during the year and continued the survey of the Bhábar forests.

An examination of the Bhábar forests was commenced by the Working-plan Branch late in the season.

25. The following is an abstract of the annual plan of operations for 1883-84, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) Existing roads to be repaired.	Done.
(*b*) New road to be made from Chameria to Kathel.	Not done.
(*c*) New road to be made from Peli to Shámpur.	Done. A bridle-path of from 4 to 6 feet in width, 2½ miles in length, was made from Chandi ohanki to Bagla Chour.
(*d*) Chila rest-house to be completed and out-houses to be built.	This was done, except that the out-houses were not quite finished.
(*e*) A pucca Kham-tahsil chauki hut may be built at Haldu Khata.	It is being built at Laldhang.
(*f*) Protect from fire the same tracts which were being protected last year.	Done.
(*g*) Sow khair in the Papidanda closed forest.	This was done, but as the result was not satisfactory, it will not be continued.
(*h*) Fell and send to England about 800 or 900 cubic feet of boxwood.	980 cubic feet sent. A detailed report of the transaction will be submitted as soon as possible.
(*i*) About 1,000 deodár trees may be sold from the Gumti Gadh forest in Tiri-Garhwál.	924 trees were sold to the late Mr. F. Wilson at Rs. 15 per tree.
(*j*) About 15,000 poles of inferior kinds of trees to be prepared for the Irrigation Department as usual.	Only 5,005 poles were required by the Irrigation Department, the Executive Engineer having made arrangements to get his supply elsewhere.
(*k*) About 20,000 cubic feet of sein and inferior kinds of timber may be cut and exported by merchants. No timber works to be undertaken by departmental agency.	3,800 cubic feet of sein timber were cut and exported by merchants, and also some poles. These transactions will be shown in the accounts for the current year, as the royalty was paid after the close of 1883-84.

Sanctioned plan.	*How far carried out.*
(*l*) The ordinary export of Khan tahsil produce will be conducted as usual.	Done.
(*m*) Cutting of bamboos to be prohibited in the same areas as last year.	Ditto.
(*n*) Khair-cutting to be permitted in the Chandi range only.	Ditto.
(*o*) If possible, arrange with Mr. Tresham for Government to lease the export of forest produce from his lands within Government forests.	Deputy Conservator reports that no satisfactory arrangement could be come to with Mr. Tresham.
(*p*) All boundary pillars to be inspected and a report submitted.	This was done.
(*q*) The Chandi range to be properly demarcated.	This is being done.

26. **Jhánsi Division.**—The following is an abstract of the annual plan of operations, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) An interchange of 177 acres of land in Barora is to be completed.	Not mentioned.
(*b*) Demarcate the portion of forest obtained in exchange in Sukwan-Dukwan.	Demarcated by 10 masonry pillars.
(*c*) Repair existing roads.	Done.
(*d*) Dukwan chauki to be repaired and building at Kachneo to be made serviceable as an inspection chauki.	Ditto.
(*e*) Sukwan-Dukwan and Ganupura forests to be protected from fire as usual.	Ditto.
(*f*) 500 sisham, ságan, and other trees to be planted in each of the forests of Dukwan, Magarpur, Ganupura, and Basneo. Teak and other seed to be sown in favourable spots. Seedlings of former years to be transplanted in suitable places and existing plantations to be maintained.	The Deputy Commissioner reports that Rs. 112 was spent on sowing and planting in Dukwan Magarpur, Ganupura, and Basnoo, and Rs. 218 watering the trees.
(*g*) Complete the well in the Sukwan forest.	Completed. Rs. 220 spent on it.
(*h*) Prepare about 500 poles for sale at the Jhánsi and Mau depôts.	561 trees were felled.
(*i*) Supply firewood, charcoal, bamboos, &c., as required.	Done.
(*j*) Lease grass preserves and other grazing as usual.	Ditto.
(*k*) Purchase a pair of bullocks.	Not required.

27. **Lalitpur Division.**—The following is an abstract of the annual plan of operations for 1883-84, with notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) Spend about Rs. 1,718 on cutting timber and bamboos for depôt sale.	No details given. The depôt sales amounted to Rs. 809 for timber and Rs. 3,662 for bamboos.
(*b*) Sow babul seed in suitable localities.	Rs. 78 spent in digging pits, sowing seed, and watering, and Rs. 22 in protecting the plantation from fire.
(*c*) Protect from fire the forests of Deogarh and Garauli as usual.	Done.
(*d*) Spend Rs. 100 on repairing cart tracks in the forest.	To be done next year.
(*e*) Three forest guards' chaukis to be built, to cost Rs. 120.	Done for Rs. 120. Also a sale depôt at Lalitpur, with mohurrirs' quarters and bullock-shed for Rs. 197.

28. **Bánda Division.**—Maps, on the scale of 4 inches = 1 mile, of all the forests except the Kuluha block have been received from the Surveyor-General's Department.

29. The following is an abstract of the annual plan of operations with, notes showing how far the programme was carried out :—

Sanctioned plan.	*How far carried out.*
(*a*) Stone pillars to be erected on the outer boundary of forests in Tirohan.	Not done.
(*b*) Fire-lines to be cleared.	None cleared.
(*c*) Creepers to be cut.	None cut.
(*d*) Repair roads.	Done.
(*e*) Repair buildings.	Ditto.
(*f*) Construct timber shed at Kárwi.	Not done.
(*g*) Repair wells.	None required repairs.
(*h*) Timber operations as usual.	Done.
(*i*) Lime and iron works as usual.	The right leased to contractors.

CHAPTER III.

PROTECTION AND IMPROVEMENTS.

1.—Establishments.

30. The superior establishment has already been given in full in para. 1. In the subordinate establishments there were no important changes, nothing beyond the ordinary promotions.

2.—General Protection and Breaches of the Forest Laws.

31. The following is a summary of form No. 52, in which is given full details of all the prosecutions :—

Divisions.	*Prosecutions.*				Convictions.	Acquittals.	Cases pending at close of 1883-84.	How tried.
	Pending from 1882-83.	New of 1883-84.	Total for trial.	Concluded in 1883-84.				
Naini Tal ...	...	25	25	25	23	2	...	Two cases by the Magistrate of Naini Tal and 23 by the divisional officer.
Ráni Khet ...	...	24	24	24	23	1	...	All tried by the Cantonment Magistrate.
Kumaun. ...	...	1	1	1	1	...	...	Tried by the divisional officer.
Garhwál ...	1	2	3	3	2	1	...	Ditto ditto.
Ganges ...	1	...	1	1	...	1	...	By district officer, Garhwál.
	...	1	1	...	...	...	1	Ditto, Bijnor.
	2	3	5	3	3	...	2	By His Highness the Raja of Tehri.
Jhánsi ..	...	9	9	9	9	...	...	By the Deputy Commissioner of Jhánsi.
Lalitpur ...	...	19	19	19	15	4	...	By the Deputy Commissioner of Lalitpur.
Total ...	4	84	88	85	76	9	3	

Including the prosecutions pending from 1882-83, but excluding those pending at close of 1883-84, the percentage of convictions (76) to prosecutions concluded (85) is 89·41.

32. The cases shown in the above statement were tried by Magistrates, and the following table shows the cases compounded under section 67 of the Forest Act :—

Divisions.	Injury to forest by fire.	Unauthorized fellings or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total cases.	Amount received in compensation.	Remarks.
Naini Tal ...	...	67	...	10	77	138 12 9	By divisional officer.
Ránikhet ...	...	25	4	3	32	93 15 0	Ditto.
Kumaun ...	1	125	7	66	199	993 0 0	Ditto.
Garhwál ...	...	67	1	30	98	207 13 10	Ditto.
Ganges ...	5	25	2	18	50	344 0 0	Ditto.
Total ...	6	309	14	127	456	1,777 9 7	

3.—Forest Fires.

33. **Naini Tal Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1883	19,380	387	18,993	617
1884	19,380	774	18,606	544

In 1883 it cost 6·11 pie per acre.

In 1884 „ 5·38 „

Percentage of area attempted to be protected to total area of forests ... 84·49

Ditto failures to area attemped ... ... 3·99

Six fires occurred during the year, by which 774 acres were burnt :—

(*a*) During the night of the 8th March a forest guard observed a fire in compartment 10 of block I.; 32 acres were burnt before it could be extinguished. The origin of the fire is not known.

(*b*) Compartment 41,—6 acres burnt. This arose from a fire left by five villagers of Garjeoli who had passed the night of the 10th March at a place called Dudli. They ought to have extinguished their fire before starting next morning, and they were fined Rs. 5 each for not having done so.

(*c*) Compartment 93,—6 acres burnt. This fire commenced late in the evening of the 19th May. It was seen by a forest guard and put out at once. Some villagers of Bagar were suspected of having lighted it accidentally, but the case could not be proved.

(*d*) Compartment 53,—10 acres burnt. This fire came across the fire-trace from an outside forest.

(*e*) Compartments 101, 107, 108*a*, and 109,—592 acres burnt. This fire commenced about 10 A. M. on the 26th May. It originated in a field belonging to the Kaphulta village and was caused by a woman burning rubbish. The Padhán of the village and four of his men, who were working in a field close by, refused to help the fire-watcher to put out the fire, and gave no assistance whatever until some time afterwards when the forest guard of the beat arrived.

By this time the fire had got beyond control, and it was not extinguished until the night of the 27th. These forests have not been burnt since 1873, and consequently the damage is considerable. Had these 5 men assisted the watcher at once, the fire could have been put out in a few minutes. The padhan was fined Rs. 15, 3 of the men Rs. 10 each, a lad Rs. 5, and the woman Rs. 10.

(*f*) Compartment 110,—128 acres burnt. This fire occurred on the 1st of June, and was supposed to have originated in a field close to boundary pillar No. 5; 3 men of Barngal village are being tried for refusing to assist in extinguishing it.

34. **Ranikhet Division**—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1883	12,360	68	12,192	491
1884	12,900	132	12,768	429

In 1883 it cost 7·68 pie per acre.

„ 1884 „ 6·38 „

Percentage of area attempted to be protected to total area of forest ... 30·24

Ditto failures to area attempted ... ... 1·02

Three fires occurred during the year, by which 132 acres were burnt.

(*a*) Chaubattia forest, 13 acres burnt. This fire was lighted on the 3rd June inside the forest near a path. The origin is not known.

(*b*) Padholi forest, 35 acres burnt. This fire was lighted inside the forest, in two places, at about 9 P. M. on the 30th May. It is supposed to have been done intentionally by villagers, but no one was caught.

(*c*) Padholi forest, 84 acres burnt. This fire began about 12-30 P.M. on the 4th June. It was lighted near to the spot where the fire of the 30th May commenced, and there is strong suspicion that the villagers of Meangchora lit it intentionally. The Assistant Commissioner of Kumaun has been asked to take recognizances from these villagers for their future good behaviour.

35. **Kumaun Division**—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1883	98,828	3,284	95,544	7,928
1884	100,348	3,478	96,870	8,453

In 1883 it cost 15·40 pie per acre.

„ 1884 „ 16·17 „

Percentage of area attempted to be protected to total area of forests ... 24·65

Ditto failures to area attempted ... ... 3·46

Four fires occurred during the year, by which 3,478 acres were burnt.

(*a*) Block VII., Jounla Sál, 300 acres burnt. This fire occurred on the 4th February, and was caused by the gross carelessness of the forester when burning fire-lines. He has been dismissed.

(*b*) Block VII., Jounla Sál, 324 acres burnt. This fire occurred on the 6th April. It originated in three different places inside the forest and was evidently the work of an incendiary. The villagers of Maljhul and Bichua are strongly suspected of having done it, and the Superintendent of the Taráí district was asked to have a police enquiry made.

(c) Block VI., Nandhour, 2,812 acres burnt. On the 6th April the padhán of Am village, who undertakes the protection of this block, fired the outer jungle along the southern boundary without reference to the forester of the range, and without providing himself with sufficient men to prevent the fire crossing the trace. The trace was clear, but a strong south-west wind carried the fire across it in many places. As the good will of the neighbouring villagers is very desirable in fire-conservancy operations the Padhán was let off with a fine of Rs. 50. The forester and forest guards were also fined half a month's pay each as punishment for not showing sufficient zeal and alacrity in endeavouring to extinguish the fire. It burnt for three days and was at last stopped by firing back from a damp nála.

(d) Block III., Kotah, 42 acres burnt. This fire occurred on the 8th of April, and was caused by burning leaves from the fire-line being blown into the forest.

36. **Garhwál Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1883	113,252	2,113	111,139	7,952
1884	110,692	4,446	106,246	7,847

In 1883 it cost 13·48 pie per acre.

„ 1884 „ 13·61 „

Percentage of area attempted to be protected to total area of forests ... 38·97

Ditto failures to area attempted ... ... 4·01

In the south Patli Dún block the area has been decreased by 2,340 acres, 300 of which is grass-land adjacent to a road and a source of danger, and the remainder is very poorly stocked forest which was burnt last year and will not repay protection. In the Rehar forest 220 acres of grass-land was excluded.

There were three fires during the year, by which 4,446 acres were burnt.

(a) Sona nadi range, Shisham Khóta, 200 acres burnt. This fire occurred on the 11th January. A few days after the lines had been cleared a stupid forest guard and a watcher set fire to a few blades of grass on the line and let the fire get into the forest. This was a gross disobedience of orders, and consequently both of the men were dismissed.

(b) North Patli Dún range. Baila núla, 50 acres were burnt. This fire occurred in February, and was caused by two plainsmen who, contrary to orders, lit a fire to smoke. They were convicted and sentenced to one month's imprisonment each.

(c) North Patli Dún range. Adhéla and Baila núla, 4,196 acres were burnt. This fire occurred on the 3rd May and burnt for two days. It commenced in a most wild part of the forest, far away from any road, path, village or hut, and no human being was seen anywhere near the place. A severe thunderstorm, without rain, passed over the forest late in the afternoon of the 3rd, and it is the opinion of the divisional officer, after full enquiry on the spot, that the fire was caused by lightning. No rain had fallen there for nearly eight months, and the grass was as dry as straw.

37. **Ganges Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1883	18,893	170	18,723	878
1884	18,893	1,228	17,665	618

In 1883 the protection of the 8,872 acres of *hill* forest cost Rs. 51, or 1·10 pie per acre.

In 1884 it cost Rs. 58, or 1·25 pie per acre.

In 1883 the 10,021 acres of Bhábar forest cost Rs. 827, or 15·84 pie per acre.

In 1884 it cost Rs. 560, or 10·72 pie per acre.

The areas are the same as those attempted in 1883.

Percentage of area of *Bhábar* forest attempted to be protected to total area of *Bhabar* forest ... ... 7·67

Percentage of failures to area attempted ... ... 12·25

Two fires occurred during the year, by which 1,228 acres were burnt.

(*a*) Jogichour forest, 707 acres burnt. This fire occurred about 1 P. M. on the 10th February. The establishment was burning an outside line, when wind suddenly sprang up and blew the fire into the forest. Although it is said to have been a calm day when the burning was commenced, it certainly ought not to have been done so early in the afternoon with the grass so dry as it was last season in February.

(*b*) Papidánda forest, 521 acres burnt. This fire occurred about 11 A. M. on the 6th June, 1884, and burnt the whole forest. The Deputy Conservator writes :— "There appears to be some reason for supposing that the fire was caused by a shikári shooting either in or near the closed forest, but there was no direct proof it seems."

As it had already been decided not to protect this forest in future (see para. 57), the burning of it is not of any great importance.

38. **Jhánsi Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost
	Acres.	Acres.	Acres.	Rs.
1883	864	...	864	90
1884	2,953	...	2,953	100

In 1883 it cost 20 pie per acre.

„ 1884 „ 6·50 „

Percentage of area attempted to be protected to total area of forests, 12·50.

There were no failures.

39. **Lalitpur Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1883	1,749	...	1,749	100
1884	1,749	...	1,749	100

It cost the same in both years, *viz.*, 10·97 pie per acre.

Percentage of area attempted to be protected to total area of forests, 1·83.

There were no failures.

40. In the Bánda Division there were no fire-conservancy operations.

41. The following summary compares the fire-conservancy operations of the years 1883 and 1884 :—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost of the year.	Total cost to 30th June of the year.	Percentage of area attempted to total area of the forests.	Percentage of failure to area attempted.
	Acres.	Acres.	Acres.	Rs.	Rs.		
1883	265,226	6,022	259,204	18.056	95,256	26·35	2·27
1884	266,915	10,058	256,857	18,091	1,13,347	26·52	3·76

The protection of 40,512 acres of hill forests (including the Naini Tal and Ránikhet Divisions) and 8,872 acres of leased forest in the Ganges Division cost during 1883, Rs. 1,159, or 5·49 pie per acre ; and of 41·152 acres during 1884, Rs. 1,031, or 4·81 pie per acre. The protection of 224,714 acres of Bhábar and plains forests cost during 1883, Rs. 16,897, or 14·43 pie per acre ; and of 225,763 acres during 1884, Rs. 17,060 or 14·50 pie per acre.

42. The following summary shows the fires which occurred both this year and last :—

Cause of fires.	Year.	Number of fires.	Area burnt.
			Acres.
Lighted inside the forest by unknown hand	1883	8	2,183
Ditto ditto	1884	7	1,015
By workmen by accident	1883	3	22
Ditto ditto	1884	...	...
By villagers or travellers by accident	1883	4	48
Ditto ditto	1884	4	776
By establishment when burning fire traces	1883	10	203
Ditto ditto	1884	5	4,061
Fires which crossed the fire traces from outside jungles ...	1883	6	3,566
Ditto ditto	1884	1	10
Fires caused by lightning	1883	...	...
Ditto ditto	1884	1	4,196
Total ...	1883	31	6,022
	1884	18	10,058

43. Setting aside the unfortunate accident of the fire in the Garhwál Division which was caused by lightning and which burnt 4,196 acres, the results of the year are better than might have been expected in such an extraordinary dry season as this has been. During the nine months, middle of September to middle of June, no rain fell except a few trifling showers at long intervals which were too light to be of any benefit.

4.—Grazing and Fencing.

44. **Naini Tal Division.**—The total area of the Division, including 3,299 acres of village lands, is 22,937 acres. The whole of this is open to grazing, except the the Jábar deodár plantation, the area of which is 147 acres. According to a recent ruling of the Commissioner's, squatters, who build their huts on village lands, are allowed the same free forest rights as the villagers on whose land they squat. In this way they can evade the payment of grazing dues, and the revenue from that source has decreased from Rs. 223 in 1881-82 to Rs. 82 in 1883-84.

45. **Ránikhet Division.**—The total area of the Division is about 42,654 acres. This is all open to free grazing, except 5,720 acres. The closed area consists of the "reserved" forest, 4,480 acres, in which grass is allowed to be cut on payment, and three closed blocks of "protected" forests, aggregating 1,240 acres, in which villagers are allowed to cut grass without payment. After a dry winter like the past one these closed forests are the only places where grass is obtainable, and to show what a boon these preserves must be to the villagers, it may be mentioned that, by the end of May, 1884, almost every blade of the grass had been cut and removed.

Rs. 124 was spent on fencing during the year, *viz.*, Rs. 114 for 609 sawn and tarred posts for the wire fence round the reserved forest and Rs. 110 for renewing four miles of thorn fence.

46. **Kumaun Division.**—The area of the division is estimated at 636 square miles. Of this 291 square miles is open to rights of usage, which includes grazing, 188 square miles is open to grazing on payment, and 157 square miles is closed to grazing for fire conservancy.

The only fencing done was the enclosure of two 2-acre sample plots in the Chorgalia sál forest. It is not considered necessary to repair the fences round the closed forests, as the boundaries are now so well known to the villagers.

47. **Garhwál Division.**—The area of the Division is estimated at 444 square miles. Fifty-six square miles are open to rights of usage, including grazing, 215 square miles are open to grazing on payment, and 173 are closed for fire conservancy.

There are no fences.

48. **Ganges Division.**—The area of the Division is estimated at 204 square miles, exclusive of the leased forests ; 29 square miles are open to rights of usage, including grazing, 159 square miles are open to grazing on payment, and 16 square miles are closed for fire conservancy.

49. **Jhánsi Division.**—The Deputy Commissioner writes :—"Grazing brought in Rs. 250 over and above the rent of the "rúnds" (grass preserves), which only amounted to Rs. 2,102 as compared with Rs. 2,535 in 1882-83. The area open to grazing covers 19,167 acres."

50. **Lalitpur Division.**—The Deputy Commissioner reports that 60,326 acres are open to grazing and 1,749 acres are closed for fire conservancy.

51. **Bánda Division.**—The whole area of the forests, 118 square miles, is open to grazing at present.

52. The following table is a summary of the information given above :—

Division.	Total area of the division square miles.	Area open to grazing square miles.	Area closed to grazing square miles.
Naini Tal	36	35¾	¼
Ránikhet	66	57	9
Kumaun	636	479	157
Garhwál	444	271	173
Ganges	204	188	16
Jhánsi	37	30	7
Lalitpur	150	94¼	2¾
Bánda	118	118	...
Total ...	1,691*	1,273	365

* There is some mistake in these figures.

5.—NATURAL REPRODUCTION.

53. **Naini Tal Division.**—The eight years' protection from fire which these forests have enjoyed has had a most beneficial effect on natural reproduction. The oak forests near to Naini Tal are not heavily grazed, and consequently they have benefited by fire protection almost as much as if they had been entirely closed. Most of the pine forests are also in a pretty good condition as regards natural reproduction ; there are a fair quantity of seedlings; and the young trees which existed before fire conservancy was commenced are growing vigorously. The forests near to cultivation are heavily grazed over, and, of course, have not improved so much as the others.

54. **Ránikhet Division.**—Reproduction in the reserved forest (seven square miles) and in the three closed plots of protected forests (aggregating about two square miles) is as good as can be desired. The protected forests which are preserved from fire, but in which grazing has to be permitted, also show signs of improvement, but the

progress of reproduction is, of course, much slower on account of the grazing. In the forests which are both grazed and burnt very few seedlings are to be found.

55. **Kumaun Division.**—The two closed forests below the foot of the hills in eastern Kumaun, Huroi and Jounla Sál, have suffered so much from accidental fires that very little improvement in reproduction is observable.

The Nindhore block, which is within the hills, and the Lakman Mandi block, which is on the outer slopes of the outer range, both in eastern Kumaun, show great improvement from the effects of fire conservancy. The slopes on the right bank of the Nindhore river which face the south are thoroughly well stocked with seedlings, on the left bank reproduction is good on the spurs and dry plateaus, but in the hollows a great many seedlings are killed by the excessive moisture.

In Chilkia Mohan, Kotali, and Garibulchand, all in western Kumaun, reproduction is very good indeed.

56. **Garhwál Division.**—In the north and south Patli Dún, Shisham Kháta, and Rehar closed blocks, the present condition of the forests is as satisfactory as could be expected. The stock of seedlings, saplings, and poles is, of course, uneven, following as it does the period during which the different parts of the forests have been protected from fire, but the improved and healthy appearance of the trees and the number of seedlings on openings contrasts most favourably with forests which are annually burnt.

57. **Ganges Division.**—The leased deodár forests have benefited very much by protection. Reproduction is much slower in forests so close to the perpetual snow-line as they are than in ordinary deodár forests, but during the last five or six years enormous numbers of seedlings have appeared, and now the whole of the forests are in a fair way towards becoming re-stocked, and reproduction is sufficiently advanced to allow of another course of fellings.

The Papidánda block was closed in 1875 with a view to encouraging the growth of khair (acacia catechu), a wood which was in great demand for sugar mill pestles in those days.

The experiment has not been a success; the thick grass appears to interfere with the growth of khair and to prevent the seed germinating, for there are no seedlings on the ground, and the old trees do not look very healthy.

This, combined with the fact that pestles are not in great demand now owing to the introduction of iron mills, has led me to decide to give up the protection of this little plot of 521 acres.

The five blocks of sál and other forests which are closed have only been under protection since 1881 and 1882. There is no very marked improvement in them yet, nor can we expect it in so short a time.

58. **Jhánsi Division.**—The Assistant Commissioner who was in charge of this Division during the year says nothing about the natural reproduction in the closed blocks. The Sukwan and Dukwan blocks have been protected for 10 years, and they ought to be beginning to improve.

59. **Lalitpur Division.**—The Deputy Commissioner reports thus:—"I inspected nearly the whole area of the Deogarh and Garowli forests during the early part of May, 1884, and cannot say that there is any improvement in reproduction; but on the other hand, I saw numerous teak trees withered and dried up, and this the natives with me declared to be the effect of fire conservancy." Considering that these two forests have been under protection since 1875, this is very discouraging, and I am quite unable to understand it, for it is opposed to the experience of forest officers generally. The fact of trees withering in a season like the past is nothing extraordinary though. Many trees of various kinds have withered and died this spring and summer, both on the Himalayas and in the forests at their base, and this

always happens when the monsoon rains cease early in September and are followed by such a complete drought as that of the past winter.

60. In the Bánda Division there are no closed forests as yet.

(6)—ARTIFICAL REPRODUCTION.

61. **Naini Tal Division.**—A description of the old plantations and a list of those in progress was given in last year's report.

All of the old ones are doing well, and "Kahla" has been added to this year by sowing 60 seers of quercus incana acorns in 1,992 beds.

In the plantations in progress the following additions have been made.

West face of China.—653 pinus excelsa trees from Ránikhet planted, 2,580 ash seedlings planted, 40 seers of quercus incana acorns sown in 1,049 pits.

Badli.—5,363 ash seedlings transplanted in nurseries.

Mauláni.—35 seers of quercus lanuginosa acorns sown in pits.

Chatrani.—30 seers of quercus incana acorns sown in 2,103 pits; pinus longifolia seed sown in 1,262 pits.

Chorsa.—600 deodar trees from Ránikhet planted.

Kiladhunga.—4,600 ash seedlings transplanted in nurseries.

Three new plantations were started :—

Jokiya.—65 seers of quercus incana and quercus lanuginosa acorns sown in 1,413 pits.

Banjáni.—30 seers of quercus lanuginosa acorns sown in 500 pits.

Udiarikhet.—35 seers of quercus incana acorns sown in 1,043 pits.

The following is a summary of the work of the year ; it cost Rs. 629 :—

Planting out 2,580 ash, 600 deodár, and 653 pinus excelsa.

Sowing somewhat over 10,000 pits with acorns and pinus longifolia seed.

Transplanting about 10,000 ash seedlings in nurseries.

Weeding the plantations in progress and shading young trees when necessary.

62. **Ránikhet Division.**—Mr. Craw's report here follows *in extenso* :—

"2. The following is a list of the kinds and quantities of seeds sown during the year :—

		lb.
First fruit trees.—	Apples	4½
	Apricot	68
	Peach	70
	Cherry	3
	Pear	13
	Quince	½
	Loquat	1
Second forest trees.—	Chír	440
	Cypress	2
	Acacia	6
	Gum	¼

"3. With the exception of the chír and acacia all other seeds were sown in the nursery. The gum seed did not vegetate well. The seeds of the fruit trees were sown in the autumn and spring and are therefore only just vegetating, but most of them so far promise to do well. The acacia seed was sown at Dalmoti in patches in the fields and in nursery beds. The seed being fresh germinated very well. The chír seed was sown broadcast at the commencement of the rains in the old fields at Gosh Kandi and Kilkhet and in a number of open bare places throughout the forests. The seed germinated very well and there is now a good crop of seedlings on the ground.

"4. Owing to very unfavorable weather there has been very little transplanting done in the forests. At Koiráli 300 and at Dalmoti 2,710 acacias have been transplanted from pots. These were put out at the commencement of the rains. At Tangra 79 sweet chestnuts were planted late in the cold weather.

"5. The following trees were also planted in cantonment ground above the nursery, the expense of which was defrayed from cantonment funds—

Walnut	3,708
Horse chestnut	500
Deodár	290
Ash	884
	5,382

"A few of the deodár have died, but the others, being deciduous trees and planted during the cold weather, are all alive, though from the want of rain they have not grown much yet.

"6. The following is a list of the forest and fruit trees distributed during the year :—

First forest trees.

To whom.	Walnut.	Horse chestnut.	Deodár.	Ash.	Pinus excelsa.	Miscellaneous.	Total.
Forest Department, Naini Tal ...	...	...	700	...	700	...	1,400
Cantonment, Ránikhet ...	7,708	6,750	2,740	884	...	400	18,482
House-holders and villagers ...	251	85	160	...	...	64	560
Total ...	7,959	6,835	3,600	884	700	464	20,442

Second fruit trees.

To whom.	Apple.	Pear.	Apricot.	Plum.	Peach.	Nectarine.	Cherry.	Quince.	Fig.	Mulberry.	Loquat.	Currant.	Sweet chestnut.	Total.
House-holders and villagers.	2,094	2,519	1,426	459	1,031	131	514	50	216	240	6	219	49	8,954
Ránikhet cantonment garden.	48	...	12	...	60	...	...	...	...	6	...	...	...	126
Simla municipality garden.	1,206	1,500	300	300	1,350	150	106	...	100	...	...	...	...	5,214
Forest Department, Gorakhpur.	...	...	10	...	390	10	...	...	25	...	...	...	...	435
Forest school, Dehra Dún.	...	20	...	...	...	...	...	...	...	...	...	...	...	20
Total ...	3,348	4,039	1,748	759	2,831	291	620	50	341	250	6	219	49	14,749
														20,442
Total trees distributed gratis ...														35,191

The revenue from the sale of fruit is as under :—

	Maunds.	Seers.	Rate.	Rs. a. p.	Rs. a. p.
			Rs. a. p.		
Apples	5	24½	0 10 0	140 5 0	
	5	6½	0 6 0	77 7 0	
	27	39	0 2 0	139 14 0	
	1	6½	0 1 0	46 8 0	
	1	4	0 12 0	33 0 0	
	...	4	1 4 0	5 0 0	
	...	11½	1 8 0	17 4 0	
	...	16	1 0 0	16 0 0	
	1	7	Auction.	29 0 0	
	42	39	...	504 6 0	
Less paid Messrs. Murray and Co. and Messrs. Mackenzie, Lyall and Co.'s commission and other charges	...	...	...	29 7 6	474 14 6
Apricots	67	14	0 1 0	168 6 0	
Peaches	6	37	0 1 0	17 5 0	
Cherries	...	34	0 1 0	2 2 0	
Plums	1	22	0 1 0	3 14 0	
Pears	...	27	0 1 0	1 11 0	193 6 0
Total ...	120	13	...	...	668 4 6

"8. Of these 27 maunds 30 seers of apples,
66 „ 34 „ apricots,
6 „ 23 „ peaches,
1 „ 22 „ plums,
0 „ 15 „ pears.

Total 103 „ 4 „ were sold to the soldiers at Ránikhet and Chaubattia ; the apples at 2 annas per seer, and the other fruits at ½ anna per seer.

"9. The trial consignments of apples sent to Calcutta, Lucknow, and Meerut for sale show considerable difference in the results : that sent to Calcutta, after deducting all charges, realized 6 pie per seer only, while those sent to Meerut and Lucknow realized respectively 12 annas and 9 pie per seer.

"10. The following is a detailed sale account for each station :—

1st.—Messrs. Murray and Co., Lucknow.

	Mds.	s.	Rs.	a.	p.
Apples	2	10½	79	8	0
			Rs.	a.	p.
Deductions—Rail carriage on two cases			2	4	0
Coolie hire			1	0	0
Commission 10 per cent.			7	14	0
Carriage by horse dâk			4	8	0
Cost of four packing cases			2	5	0
Carriage from Chaubattia to Ránibágh			6	7	3
			24	6	3
Rupees ...			55	1	9

or 9 annas 9 pie per seer.

2nd.—Messrs. Murray and Co., Meerut.

Apples	31½ seers		38	4	0
		Rs.	a.	p.	
Deductions—Coolie hire		0	8	0	
Commission 10 per cent.		3	13	0	
Ditto on money-order		0	8	0	
Rail carriage on two cases		1	2	0	
Carriage by horse dâk		4	8	0	
Cost of two packing cases		1	2	6	
Carriage from Chaubattia to Ránibágh		3	3	9	
			14	13	3
Rupees ...			23	[illegible]	[illegible]

or 12 annas per seer.

3rd.—Messrs. Mackenzie, Lyall and Co., Calcutta.

	Maund	s.	Rs.	a.	p.
Apples	1	7	29	0	0
		Rs.	a.	p.	
Deductions—Telegram		1	0	0	
Coolie hire and baskets		1	4	0	
Advertising		8	15	6	
Commission 8 per cent.		2	5	0	
Clearing and forwarding		0	8	0	
Rail carriage		4	8	0	
Carriage by horse dâk		4	8	0	
Cost of two packing cases		1	2	6	
Carriage from Chaubattia to Ránibágh		3	3	9	
			27	6	9
Rupees ...			1	9	3

or 6 pie per seer.

"11. The following is a list of the forest and fruit trees in the nursery:—

1st.—*Forest trees*—	Walnuts	40,932	
	Deodar	43,017	
	Horse chestnut	5,888	
	Pinus excelsa	11,214	
	Ash	21,270	
	Cypress	13,000	
	Willow	13,430	
	Wild pear	130,640	
	Ghingaru	23,000	
	Alder	1,060	
	Oak	800	
	Miscellaneous	1,108	
			305,359
2nd.—*Fruit trees*—	Apple, grafted	6,672	
	" stocks	5,196	
	Pear, grafted	4,158	
	" stocks	8,471	
	Apricot, budded	4,226	
	" stocks	40,165	
	Cherry, budded	420	
	" stocks	1,245	
	Plum, budded	337	
	" stocks	1,968	
	Peach, budded	7,500	
	" stocks	1,227	
	Loquat, enarched	77	
	" stocks	122	
	Quince	407	
	Fig	979	
	Currants	132	
	Mulberry	375	
	Sweet chestnut	294	
			83,971
	Total ...		3,89,330

"12. The fruit trees in the orchard consist of—

1,647 apples of kinds.
1,040 pears "
656 apricots "
254 plums "
160 cherries "
20 peaches "
3 nectarines "
19 loquats "
412 sweet chestnuts.

4,211

"13. In addition to these, the following are annually layered to supply stocks for cuttings, grafting, and budding :—

325 apples.
110 plums.
132 cherries.
25 figs.
21 mulberries.
81 currants.
24 quinces.
46 sweet chestnuts.

764

"14. I may mention that there is a growing desire among the villages for fruit trees, particularly apples and pears and some of the stone fruits as apricots and

and plums. The latter come into fruit earlier and thrive better than the former on low hot situations, and I therefore advise the villagers to plant them in preference to either apples or pears when their land is low and hot.

"15. There was a very absurd idea prevalent among the villagers at one time, and I believe it had the effect of keeping back many from coming for trees. They thought Government intended to put a tax upon each tree when it came into bearing. Of course when the matter was mentioned to me I told the chaudhri to tell every one who came for trees that Government had no such intention, nor would their trees ever be taxed; that Government in giving them English fruit trees free of charge only desired to see good kinds of fruit in their possession, either for their own use or to sell for their own benefit."

63. 20,442 forest trees and 14,749 grafted fruit trees were distributed during the year. The excess over last year in fruit trees is accounted for by 5,214 having been presented to the Simla municipal gardens. A full account of all the plantations in the reserved forest was given in last year's report. In May last I saw almost all of them, and am glad to say that they are getting on well and have not suffered much from the unusual drought of last winter. We have at last, after trying every means we can think of, determined to give up attempting to grow the Australian acacias at Ránikhet. In last year's report I expressed a hope that the vigorous shoots which the pot-raised plants were throwing up would continue to grow as they were growing when I saw them in May, 1883. But almost all of them died down again during the autumn and winter, and many of the trees died entirely; so I fear we must allow that our attempts to introduce the Australian acacias at Ránikhet is a failure: the climate must be unsuitable for them.

64. **Kumaon Division.**—The garden at Ramnagar, in which are the experimental trees, and the plantations at Rampur, Leti, and Chopra were protected. Five acres of ground at Chopra was prepared for sál sowings, but it is doubtful whether seed will be procurable at the commencement of the rains, for, owing to the unusual winter's drought, sál seed ripened, and was falling, a month earlier than usual this year. Since writing this I have heard that seed was obtained and sown.

65. **Garhwál Division.**—There are no plantations in this Division, except the mango grove on the Saneh camping-ground which was formed last year. It covers 1½ acres and the trees are growing well.

66. **Ganges Divisoin.**—The two mango-grove plantations on the camping-grounds at Chila and Haldukhata are doing well. Some khair seed was sown in lines in the Papidanda closed block as an experiment. It germinated well, but the young trees withered and died during the winter and spring, and, as stated in para. 57, this block is no longer to be protected, as the demand for khair is very slack now owing to the introduction of iron sugar mills.

67. **Jhánsi Division.**—Rs. 550 was spent on plantations, *viz.*, Rs. 112 on planting trees and sowing seed, Rs. 218 on watering, and Rs. 220 on making a well in the Dhakwan forest to water the plantations. The sowings Assistant Commissioner who was in charge of the forests says that last year's sowings were a failure owing to the unusual drought.

68. **Lalitpur Division.**—Ten acres of ground in the Kuchnowda forest was sown with babul seed last year and it was successful. Rs. 78 was spent on digging pits, sowing seed, and watering the plants, and Rs. 22 on protecting the plantation from fire.

69. The following is a summary of the expenditure on artificial reproduction during 1882-83 and 1883-84 :—

Divisions.	1882-83.	1883-84.	
	Rs.	Rs.	
Naini Tal	525	629	Vide Form No. 50 for 1882-83 and 1883-84.
Ránikhet	2,300	1,944	
Kumaun	642	322	
Garhwál	112	198	
Ganges	245	111	
Jhánsi	561	550	
Lalitpur	50	100	
Bánda	3	...	
Total ...	4,379	3,854	

(7)—CUTTING OF CREEPERS.

70. **Kumaun Division.**—Three thousand two hundred and fifty creepers in Western and 5,102 in Eastern Kumaun were cut by the forest officials. Mainphal (*Randia dumetorum*) and creepers were cut over 915 acres of sál forest in compartment No. II.-2, Sitabani, the cost of which falls in 1884-85.

71. **Garhwál Division.**—Creepers were cut over 1,475 acres in the North Patli Dún range at a cost of Rs. 90.

(8)—EXPERIMENTS AND EXOTIC TREES.

72. **Kumaun Division.**—In March and April, 1881, three ½ acre sample plots of sál forest were fenced and the trees measured, with the object of collecting data towards determining the rate of growth of sál.

Plot (*a*) is on a flat called Lakman Mandi at the base of the outer range in Eastern Kumaun, near Chorgalia.

Plot (*b*) is only a few hundred yards from (*a*), on a plateau called Sunmán Thápla at about 60 feet higher elevation than (*a*).

Plot (*c*) is on a plateau called Amtanola near Mohán, in Western Kumaun. It is in the heart of the sál forests, on the right bank of the Kosi river and about 12 miles inside the hills.

The following table shows the growth during three years of six of the best specimens of different sizes of trees in each one of the three plots.

(*a*)—*Lakman Mandi Plot.*

Number.	Girth on the 25th March, 1881.		Girth on the 18th March, 1884.		Increased girth in 3 years.	Description of tree.	Average increase in girth in 3 years.
	Feet.	Inches.	Feet.	Inches.	Inches.		Inches.
1	5	$\frac{9}{10}$	5	$2\frac{9}{10}$	2	Straight, sound, free crown	$2\frac{1}{10}$
2	4	$3\frac{5}{10}$	4	$5\frac{7}{10}$	$2\frac{3}{10}$	Dit	
3	3	5	3	$7\frac{6}{10}$	$2\frac{6}{10}$	Very crooked, free crown, one branch rotten,	$2\frac{8}{10}$
4	3	$\frac{3}{10}$	3	$3\frac{3}{10}$	3	Straight, free crown	
5	2	$6\frac{7}{10}$	2	9	$2\frac{3}{10}$	Straight, sound, free crown	$2\frac{3}{20}$
6	1	$5\frac{7}{10}$	1	$7\frac{7}{10}$	2	Straight, but over-shadowed	

(*b*)—*Sunmán Thápla Plot.*

Number.	Girth on the 24th March, 1881.		Girth on the 18th March, 1884.		Increased girth in 3 years.	Description of tree.	Average increase in girth in 3 years.
	Feet.	Inches.	Feet.	Inches.	Inches.		Inches.
1	4	$7\frac{8}{10}$	4	$11\frac{1}{10}$	$3\frac{3}{10}$	Very crooked, but free	$3\frac{2}{10}$
2	4	1	4	$4\frac{1}{10}$	$3\frac{1}{10}$	Straight, sound, free	
3	3	$2\frac{1}{10}$	3	$4\frac{8}{10}$	$2\frac{6}{10}$	Fairly straight, free	$2\frac{13}{20}$
4	3	$\frac{7}{10}$	3	$3\frac{5}{10}$	$2\frac{8}{10}$	Straight, sound, free	
5	1	$11\frac{5}{10}$	2	$1\frac{6}{10}$	$1\frac{7}{10}$	Crooked, but free	$1\frac{7}{10}$
6	1	$5\frac{1}{10}$	1	$6\frac{8}{10}$	$1\frac{7}{10}$	Coppice shoot, straight, suppressed ...	

(*c*)—*Amtanola Plot.*

Number.	Girth on the 22nd April, 1881.		Girth on the 3rd March, 1884.		Increased girth in 3 years.	Description of tree.	Average increase in girth in 3 years.
	Feet.	Inches.	Feet	Inches.	Inches.		Inches.
1	5	$5\frac{4}{10}$	5	$9\frac{1}{10}$	$3\frac{7}{10}$	Straight, sound, free crown	$3\frac{6}{10}$
2	4	$2\frac{9}{10}$	4	$6\frac{4}{10}$	$3\frac{5}{10}$	Ditto	
3	3	$4\frac{3}{10}$	3	$6\frac{1}{10}$	$1\frac{8}{10}$	Straight, free crown	$1\frac{9}{10}$
4	2	$8\frac{5}{10}$	2	$10\frac{5}{10}$	2	Ditto	
5	2	$\frac{8}{10}$	2	$2\frac{5}{10}$	$1\frac{7}{10}$	Crooked and suppressed	$1\frac{13}{20}$
6	1	$7\frac{1}{10}$	1	$8\frac{7}{10}$	$1\frac{6}{10}$	Straight, suppressed	

In (*a*) plot there are 65 sál trees and 6 trees of other kinds,
in (*b*) 56 sál and 15 of other kinds, and
in (*c*) 68 sál and 3 of other kinds.

The three plots above referred to have not been thinned, pruned, or interfered with in any way; nothing whatever has been done to them beyond fencing them and protecting them from fire and grazing. The area is the same in all, and the fact of them all containing exactly the same number of trees is very remarkable and shows how evenly nature does her work in forests where the conditions are similar.

The Inspector-General saw these plots last spring and expressed a wish to have three other plots of 2 acres each alongside of them enclosed and thinned, in order to test the rate of growth of sál under more favourable circumstances than when left entirely to nature.

This was done during March, 1884. Suppressed trees were first removed, and then a careful thinning was made, so that every tree left on the ground has plenty of room to grow in and sufficient space above for a full development of its crown. After this had been done it was found that the following number of sál trees were left:—

Lakman Mandi Block.

Trees under 2 feet girth	26
" " 3 " "	34
" " 4 " "	33
" " 5 " "	20
" " 6 " "	1
Total ...	114

Sunman Thápla Block.

Trees under 2 feet girth	14
" " 3 " "	38
" " 4 " "	42
" " 5 " "	19
" " 6 " "	4
Total ...	117

Amtanola Plot.

Trees under 2 feet girth	2
" " 3 " "	9
" " 4 " "	57
" " 5 " "	43
" " 6 " "	3
Total ...	114

Here, again, we have evidence of the extraordinary similarity of the three different forests. The thinnings were all marked by the Divisional Officer; he did the work with reference to the condition of each individual tree, and made no attempt whatever to leave the same number in each plot. The standing trees were all numbered and measured and a record kept, and the measurements will be taken and recorded annually.

(9)—COMMUNICATIONS AND BUILDING.

73. *Expenditure.*—The expenditure was as follows as compared with that of the previous year :—

Year.	Roads and bridges.	Buildings.	Other works.	Total.
	Rs.	Rs.	Rs.	Rs.
1882-83	35,996	10,710	89	46,795
1883-84	30,046	10,352	185	40,583

74. *Roads and Bridges.*—The repair of existing roads cost Rs. 17,346, and the construction of about 109 miles of new roads and paths of all classes cost Rs. 14,857. (*N. B.*—Rs. 2,157 was charged to heads AI.*a* or A. 11.)

75. The following statement shows the length of roads and paths constructed and maintained by the department at the end of the year 1883-84 :—

Description of roads.	Length in miles.								
	Naini Tal.	Ránikhet.	Kumaun.	Garhwál.	Ganges.	Jhánsi.	Lalitpur.	Bánda.	Total.
In the Bhábar and plains.									
Cart roads	...	...	279	196	135	9	...	12	631
Bridle roads	...	...	77	70	22	...	...	...	169
Foot and fire-line paths	...	...	202	269	...	...	...	...	471
In the hills.									
Roads of 5 feet and over	21	...	...	...	91	...	...	...	112
Roads of under 5 feet	3	36	...	...	...	...	...	...	39
Total ...	24	36	558	535	248	9	...	12	1,422

Naini Tal Division.—Rs. 420 were spent on repairing 23½ miles of existing roads (8¼ miles of road abandoned during the year) and Rs. 62 on the construction of ½ a mile of 5 feet road between Maulani and Loharkot.

Ránikhet Division.—Rs. 128 spent on repairing 33 miles of existing roads, and Rs. 63 on constructing three miles of road under 5 feet in breadth, from Kala Jhipa to Jakhdeo, 1 mile 27 chains, and from Chaubattia to Kalnu, 2 miles 3 chains.

Kumaun Division.—Rs. 6,152 spent on repairing 520 miles of roads and paths and Rs. 2,793 on constructing 9 miles of cart road, and 29 miles of paths.

Garhwál Division.—Rs. 8,308 spent on repairing 474 miles of roads and paths and Rs. 11,723 on constructing 26 miles of cart road, 16 miles of bridle road, and 19 miles of paths.

Ganges Division.—Rs. 2,24½ spent on repairing 242 miles of roads and paths and Rs. 216 on constructing 3¾ miles of cart road from Peli to Shampur and 2¼ miles of bridle road from Chandi chauki to Baglachour.

Jhánsi Division.—Rs. 35 spent on repairing 9 miles of cart road.

Bánda Division.—Rs. 58 spent on repairing 12 miles of cart road.

76. *Buildings.*—The total expenditure under this head was Rs. 10,352, thus :—

	Rs.
Repair of existing buildings	2,110
Construction of officers' rest-houses	6,221
Ditto of permanent chaukis and houses for subordinates, stores, &c. ...	1,964
Ditto of temporary chaukis, &c.	57
Total ...	10,352

77. The following is a list of the buildings which have been constructed and are maintained for the use of offieers and subordinates :—

Description.	For the use of Officers.	For the use of Subordinates.	Offices, stores, chaukis, &c.	Wells.	Total.	Remarks.
Direction.						
Permanent	...	...	1	...	1	The office building also contains rooms for Kumaun and Garhwál.
Semi-permanent	...	...	...	...	...	
Temporary	...	...	...	...	...	
Total ...	...	...	1	...	1	
Naini Tal.						
Perament	1	6	3	...	10	
Semi-permanent	1	...	...	...	1	
Temporary	...	1	...	...	1	
Total ...	2	7	3	...	12	
Ránikhet.						
Permanent	1	2	...	...	3	
Semi-permanent	1	...	...	...	1	
Temporary	...	...	...	...	...	
Total ...	2	2	...	...	4	
Kumaun.						
Permanent	4	3	7	...	14	
Semi-permanent	...	...	...	...	...	
Temporary	...	...	...	...	...	
Total ...	4	3	7	...	14	
Garhwál.						
Permanent	1	...	1	1	3	
Semi permanent	1	...	...	...	1	
Temporary	...	...	...	...	...	
Total ...	2	...	1	1	4	
Ganges.						
Permanent	5	...	...	...	5	Four of these are in the leased forests.
Semi-permanent	2	...	...	...	2	One of these is in the leased forests.
Temporary	...	...	...	...	...	
Total ...	7	...	...	...	7	

Description.	For the use of Officers.	For the use of Subordinates.	Offices, stores, chaukis, &c.	Wells.	Total.	Remarks.
Jhánsi.						
Permanent	...	...	...	1	1	These figures are open to correction.
Semi-permanent	1	...	2	...	3	
Temporary	...	...	...	...	...	
Total ...	1	...	2	1	4	
Lalitpur.						
Permanent	...	...	...	...	...	
Semi-permanent	2	...	17	...	19	
Temporary	...	...	...	...	...	
Total ...	2	...	17	...	19	
Bánda.						
Permanent	...	...	...	...	...	
Semi-permanent	1	...	1	...	2	
Temporary	...	...	...	...	...	
Total ...	1	...	1	...	2	
GRAND TOTAL ...	21	12	32	2	67	

The expenditure incurred on buildings during the year is explained thus :—

	Rs.	a.	p.
Direction Division :—			
Petty repairs of office building	21	3	0
Naini Tal Division—			
Repairs of existing buildings	320	0	0
Constructing three houses for subordinates at Pangoth, Chatrani, and Shamkhet	239	0	0
Ránikhet Division—			
Petty repairs of existing buildings	159	0	0
Kumaun Division—			
Repairs of existing buildings	1,196	0	0
Completing tool and store house at Chorgalia	721	0	0
" 2nd class rest-house at Bhalone	1,811	0	0
Constructing two temporary chaukis	57	0	0
Garnwál Division—			
Petty repair of existing buildings	16	0	0
Completing 1st class rest-house at Dhikala	2,108	0	0
Ganges Division—			
Repair of existing buildings	185	0	0
Completing 1st class rest-house at Chila	2,302	0	0
Partly construction of subordinates' houses and chauki at Chila and Laldhang ...	686	0	0
Jhánsi Division—			
Repair of existing buildings	113	0	
Lalitpur Division—			
Repair of existing buildings	83	0	0
Constructing one sale depôt and three chaukis	317	0	0
Bánda Division—			
Repair of existing buildings	17	0	0

78. *Other works.*—Rs. 185 was spent in the Garhwál Division for clearing out and repairing the well at Pakrao.

CHAPTER IV.

YIELD AND WORKING.

(1).—DEPARTMENTAL OPERATIONS.

79. Annual returns 58, 59, 60, 61 and 62 show the results of the timber operations which are conducted departmentally.

A. Return 58.—Number of trees felled during the year by Government agency.
B. " 59.—Outturn of timber and other produce cut and collected by Government agency.
C. " 60.—Timber and other produce received from forests in sale depôts.
D. " 61.—Sales of timber and other produce cut and collected by Government agency.
E. " 62.—Account of timber and other produce cut or collected by Government agency and brought to sale depôts or sold locally.

80. *A.— Trees felled during the year (Sellection fellings). Form No. 58.*

Divisions.	Chír.		Oak.		Sál.		Sein.		Box.		Teak.		Miscellaneous.		Total, 1883-84.		Total, 1882-83.		Difference.
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	C. ft.
Naini Tal	293	12,400	32	6,000	...	...	...	...	...	...	...	...	56	2,500	441	20,900	1,870	112,636	—91,736
Ránikhet	2,127	34,839	32	440	...	...	...	...	...	...	...	...	59	597	2,218	35,876	5,846	62,897	—27,021
Kumaun	...	...	...	...	1,438	18,984	4	223	...	...	...	...	...	...	1,442	19,207	2,491	57,576	—38,369
Garhwál	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ganges	...	...	...	...	...	...	...	...	200	556	...	...	4,710	13,047	4,910	13,603	11,639	73,481	—59,878
Jhánsi	...	...	...	...	...	...	...	...	...	...	...	...	561	1,683	561	1,683	471	1,009	+674
Lalitpur	...	...	...	...	...	...	...	...	...	...	4	10	2,889	5,009	2,893	5,019	3,574	5,551	—532
Bánda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	175	—175
Total ...	2,420	47,239	124	6,440	1,438	18,984	4	223	200	556	4	10	8,275	22,836	12,465	96,288	25,898	313,325	—217,037 C. ft. & —13,433 trees.

The trees shown in this statement are only the "selection fellings" in accordance with the intention of Form No. 58. There were also 7,737 trees felled by Government agency under thinnings and clearances, as shown in the statement of trees felled given in sub-head (4) of this chapter.

A comparison of the trees felled during the present and previous years shows a decrease in the present year of 13,433 trees and 217,037 cubic feet. The classification of the trees will be found in the abstract at the foot of Form No. 58. In the Ránikhet and Kumaun Divisions the fellings were conducted in accordance with working plans. In all other Divisions the fellings were in accordance with the annual plans of operations.

Naini Tal Division.—Owing to sawyers not having been procurable in sufficient numbers less timber was prepared for the station, and as there were a lot of tops and branches lying over in the Hinwan forests from the previous year, it was not necessary to fell so many trees for fuel for the Commissariat Department. A smaller number of trees, too, were felled for charcoal for the station, the forests outside the forest boundary having supplied a good deal of it this year.

Ránikhet Division.—Owing to the absence of troops from the station during the winter less firewood was taken by the Commissariat Department. A great deal of the fuel was obtained from the clearing of fire-lines and from fallen trees, which accounts for the number of trees felled being so much less than during 1882-83.

Kumaun Division.—The hope expressed in para. 119, Section 4, of last year's annual report, of extending the Garhwál system of conducting timber works by private enterprise to the eastern portion of the Kumaun Division, was realized.

In Eastern Kumaun the departmental timber works were confined to bringing to depôt the few sál and sein karis which were left in the forest from the previous years' operations. The fellings of the year were conducted on the Garhwál system.

The 1,442 trees shown in the statement were felled in Western Kumaun (Kotah, I. 9 and II. 3). The timber was sawn into karis and brought to the Ramnagar depôt.

Garhwál Division.—Neither last year nor this were any trees felled in this Division by departmental agency. The private enterprise system is now thoroughly established.

The stock of Government timber has been entirely cleared off. A note on the comparative results of departmental timber operations and the direct system will be found in para. 109 of Chapter V.

Ganges Division.—The direct system of timber works was also extended to the Bhábar forests of this Division. The departmental operations were confined to felling 200 box trees for the London market and 4,710 kokat trees for tors and ballis for the Ganges Canal works. The 200 box trees yielded 556 cubic feet; 424 cubic feet of boxwood were also obtained from a contractor on reasonable terms, and the consignment sent to Messrs. Churchill and Sims, of London, amounted to 980 cubic feet.

In the Jhánsi and Lalitpur Divisions the fellings by departmental agency were above the average.

In the Bánda Division no selection fellings took place during the year.

81. *B.—Abstract of outturn of timber and other produce cut and collected by Government Agency. Form No. 59.*

1882-83.			1883-84.		
			TIMBER		
	Number.	Cubic feet		Number.	Cubic feet.
The details are given in para. 90 of last year's annual report.			Chír logs	1,454	12,400
			Sál sleepers	3	4
			" karis	10,846	19,518
			Sein do.	81	224
			Sál joras	44	66
			Kukat ballas, ballis and tors,	5,005	12,895
			Chír ballis and slabs ...	491	155
			Miscellaneous ballis ...	12,147	13,663
			Boxwood pieces ...	389	556
			Miscellaneous pieces ...	6,254	1,769
Total ...	117,034	174,593	...	36,714	61,250

OTHER PRODUCE.

1882-83.			1883-84.		
Firewood	92,900	mds.	Firewood	96,708	mds.
Charcoal	8,066	,,	Charcoal	1,019	,,
Bamboos	1,156,939	no.	Bamboos	909,481	no.
Kiras	5,705	,,	Kiras	3,252	,,
Kurias	188,845	,,	Kurias	166,367	,,
Hides	9	,,	Hides	4	,,
Lime	2,305	mds.	Lime	82	mds.
Mahúa	231	,,	Mahúa	127	,,
Aonla	20	,,			
Confiscated, drift and waif wood	1,153	c. ft.	Confiscated, drift and waif wood	2,269	c. ft.

The outturn of *timber* has fallen from 174,393 cubic feet in 1882-83 to 61,250 cubic feet in the present year. With the exception of the Naini Tal Division, in which the decrease was owing to the impossibility of procuring sawyers in sufficient numbers, the decrease in all the large Divisions—Kumaun, Garhwál, and Ganges—is the direct result of the policy of abondoning departmental work in favor of the direct system of private enterprise.

In "other produce," *viz.*, firewood, bamboos, &c., the results are very nearly the same in both years.

82. *C.—Timber and other produce received from forests in sale depôts. Form No.* 60.

The following abstract shows the above receipts for the years 1882-83 and 1883-84 :—

TIMBER.

1882-83.	Number.	Cubic feet.	1883-84.	Number.	Cubic feet
The details are given in para. 91 of the annual report for 1882-83.			Sál sleepers	10	12
			,, karis	14,846	25,320
			Sein do.	8,941	15,544
			Chír do.	1,929	3,342
			Jaman do.	1,146	1,920
			Ash do.	1	1
			Kokat do.	3,114	5,036
			Sein planks	11	73
			Chír do.	15,949	8,834
			Ash do.	51	34
			Sál joras	145	220
			Chír ballis	27	18
			Miscellaneous ballis ...	5,381	6,112
			,, pieces ...	2,308	732
Total ...	76,036	100,618		53,800	67,139

OTHER PRODUCE.

1882-83.			1883-84.		
Firewood	62,140	mds.	Firewood	74,156	mds.
Charcoal	8,066	,,	Charcoal	1,019	,,
Bamboos	349,764	no.	Bamboos	412,338	no.
Kiras	5,700	,,	Kiras	3,252	,,
Kurias	63,165	,,	Kurias	59,343	,,
Lime	593	mds.	Hides	2	,,
			Lime	82	mds.

The timber receipts have fallen from 100,618 cubic feet to 67,139 cubic feet, and correspond, as would be expected, to the decrease in the trees felled by Government agency and the outturn from them.

The yield under "other produce" is on the whole rather more than in the previous year. The decrease in charcoal is in the Naini Tal Division. Natives are now

supplying large quantities from village and other forests, which relieves the department from a disagreeable and unprofitable duty.

83. *D.—Sales of timber and other produce cut and collected by Government agency Form No. 61.*

These are shown in the following abstract :—

TIMBER.

1882-83.	Number.	Cubic feet.	1883-84.	Number.	Cubic feet.
The details are given in para. 92 of the report for the year.			Sál logs	137	6,227
			„ sleepers	10,000	13,333
			„ karis	19,143	32,581
			Haldu karis	800	1,333
			Sein do.	11,177	18,138
			Jaman do.	2,029	3,355
			Chír do.	5,227	10,122
			Kokat do.	3 114	5,036
			Ash do.	5	3
			Sein planks	50	55
			Chír do.	16,401	9,223
			Ash do.	51	34
			Sál joras	104	159
			Chír ballis and slabs	112	76
			Miscellaneous ballis	4,750	4,953
			„ pieces	2,934	806
Total ...	70,199	85,509	... ...	76,034	105,384

OTHER PRODUCE.

1882-83.		1883-84.	
Firewood	55,835 mds.	Firewood	70,885 mds.
Charcoal	6,232 „	Charcoal	4,164 „
Bamboos	373,163 no.	Bamboos	358,395 no.
Kiras	3,655 „	Kiras	4,657 „
Kurias	47,225 „	Kuria	48,668 „
Hides	7 „	Hides	2 „
Lime	304 mds.	Lime	1,000 mds.

Here, contrariwise to the results from departmental agency as shown under A., B., and C., the sale of timber from Government depôts has been considerably greater than in the previous year. The Garhwál and Ganges Divisions entirely cleared off their stocks, and in the Kumaun Division stocks have been appreciably diminished.

84. *E.—Statement showing disposal of produce collected by Government Agency for 1883-84, compared with the results for 1882-83.*

Divisions and description of produce.	Sold locally, i.e., not brought to depôt.				Depôt Transactions.															
					Balance in hand at commencement of year.				Brought to depôt.				Total received in depôt.				Removed by purchasers from depôt.			
	1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Naini Tal.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, c. ft.	417	59	137	29	12,414	7,759	8,157	5,098	16,962	11,536	12,229	6,937	29,376	19,295	20,386	12,035	20,880	14,070	19,456	11,519
Firewood, mds. ...	33,357	12,564	21,017	9,730	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal „	...	...	...	...	6,294	6,294	8,040	8,040	7,524	7,498	812	812	13,818	13,792	8,852	8,852	5,586	5,584	4,002	3,998
Lime „	...	...	...	...	435	326	924	462	593	208	82	41	1,028	534	1,006	503	80	60	1,000	500
Total ...	...	12,723	...	9,759	...	14,379	...	13,600	...	19,242	...	7,790	...	33,621	...	21,390	...	19,714	...	16,017
Ránikhet.																				
Firewood, mds. ...	...	...	...	...	4,00	1,460	10,468	3,820	60,304	22,011	72,157	26,202	64,304	23,471	82,625	30,022	53,838	19,651	68,940	25,054
Kumaon.																				
Timber, c. ft.	289	4[illegible]	171	111	50,726	66,423	96,462	1,08,814	72,493	68,720	28,987	32,522	1,23,219	1,35,143	1,25,449	1,41,336	26,778	26,279	53,292	65,115
Garhwál.																				
Timber, c. ft.	153	29	2,097	524	25,343	14,307	5,895	5,299	2,280	1,459	...	...	27,623	15,766	5,895	5,299	21,701	11,105	5,157	5,099
Ganges.																				
Timber, c. ft.	1,316	226	36	13	10,484	4,866	2,659	2,010	2,659	2,010	19,079	9,564	13,143	6,876	21,738	11,574	10,484	4,870	21,738	11,574
Poles, &c.	18,725	6,170	40,046	10,474	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds.... ...	450	54	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos	120	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	6,451	...	10,487	...	4,866	...	2,010	...	2,010	...	9,564	...	6,876	...	11,574	...	4,870	...	11,574
Jhánsi.																				
Timber, c. ft.	...	...	21	1	268	14	358	29	294	47	949	60	557	61	1,307	89	199	32	142	14
Firewood, mds.... ...	...	...	...	...	822	114	661	80	1,836	231	1,999	287	2,658	345	2,660	367	1,997	265	1,945	279
Charcoal „	...	...	...	...	654	273	550	218	542	212	207	102	1,196	485	757	320	646	267	162	78
Bamboos, no.	...	...	...	...	5,135	52	4,291	44	6,495	65	10,445	108	11,630	117	14,736	152	7,339	73	9,666	92
Minor produce, kiras and kurias.	...	...	...	...	7,565	86	26,066	183	41,934	473	39,111	53	49,499	559	65,177	236	33,433	316	37,764	430
Total ...	...	...	...	1	...	489	...	354	...	1,028	...	610	...	1,517	...	1,164	...	953	...	893

E.—Statement showing disposal of produce collected by Government Agency, &c.—(continued).

Divisions and description of produce.	Depôt Transactions—(contd.)																			
	Converted in depôt.				*Lost or written off as useless.*				*Used by the department from depôt.*				*Total issues from depôt.*				*Balance in hand at close of the year.*			
	1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Naini Tal.						Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, c. ft. ...	...	...	...	...	...	...	...	...	339	127	179	52	21,219	14,197	19,637	11,571	8,157	5,098	749	468
Firewood, mds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal, „ ...	...	...	...	...	...	...	...	...	192	168	2,148	2,148	5,778	5,752	6,150	6,146	6,049	8,040	2,702	2,702
Lime ...	...	...	...	...	...	...	...	...	24	12	6	3	104	7	1,006	503	924	462	...	...
Total ...	...	...	...	...	...	...	...	...	...	307	...	2,203	...	20,021	...	18,220	...	13,600	...	3,170
Ránikhet.																				
Firewood, mds. ...	...	...	...	...	...	...	...	...	...	...	...	...	53,838	19,651	68,940	25,054	10,466	3,620	13,683	4,968
Kumaun.																				
Timber, c.ft. ...	...	...	...	...	...	...	...	...	79	50	19	7	26,857	26,329	53,211	65,122	96,462	1,08,814	72,138	76,214
Garhwal.																				
Timber, c. ft. ...	...	...	...	...	27	20	557	...	...	...	200	200	21,728	11,125	5,894	5,299	5,895	5,299	...	...
Gangee.																				
Timber, c. ft. ...	...	...	...	...	...	...	...	...	...	...	...	...	10,484	4,870	21,738	11,574	2,659	2,010	...	...
Poles, &c. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	—
Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,870	...	11,574	...	2,010	...	...
Jhánsi.																				
Timber, c. ft....	...	...	...	...	...	...	...	...	...	...	37	6	199	32	179	19	358	29	1,128	70
Firewood, mds.	...	...	...	...	...	...	38	6	...	...	1	...	1,997	265	1,984	285	661	80	676	82
Charcoal „ ...	...	...	...	...	...	...	57	28	...	...	...	...	646	267	219	106	550	218	538	214
Bamboos, no. ...	...	...	...	...	...	...	...	...	...	...	200	4	7,339	73	9,266	96	4,291	44	5,470	56
Minor produce, kiras and kurias.	...	...	...	...	...	...	155	4	...	...	20	1	23,433	316	37,939	435	26,066	183	27,238	104
Total ...	...	...	...	...	...	...	...	38	...	...	...	10	...	953	...	941	...	554	...	526

E.—Statement showing disposal of produce collected by Government Agency, &c.—(continued).

Divisions and description of produce.	Sold locally, i.e., not brought to depôt.				Depôt Transactions.—(contd.)															
					Balance in hand at commencement of year.				Brought to depôt.				Total received in depôt.				Removed by purchasers from depôt.			
	1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity	Value.
Lalitpur.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, c. ft.	3,306	300	3,663	173	101	5	...	...	2,631	175	1,356	108	2,732	180	1,356	108	2,732	182	802	62
Bamboos, no.	7,81,231	2,747	4,88,149	1,757	19,375	108	1,554	9	3,35,778	1,866	3,85,097	2,222	3,55,153	1,974	3,86,651	2,231	3,53,599	1,965	3,37,397	1,905
Minor produce, kurias ...	1,25,680	323	90,684	458	1,195	8	...	...	26,931	200	23,484	175	28,126	208	23,484	175	27,447	200	15,561	116
Total ...	...	3,370	...	2,388	...	121	...	9	...	2,241	...	2,505	...	2,362	...	2,514	...	2,347	...	2,083
Bánda.																				
Timber, c. ft.	6,014	600	2,485	165	1,140	98	1,604	277	3,299	554	4,539	600	4,439	652	6,143	877	2,835	369	4,815	541
Bamboos, no.	19,920	192	20,710	200	6,434	64	700	7	6,491	65	16,796	168	12,925	129	17,496	175	12,225	122	11,932	64
Lime, mds.	926	108	1,140	120	224	27	...	...	...	...	...	...	224	27	...	...	224	27	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ..	...	900	...	485	...	189	...	284	...	619	...	768	...	808	...	1,052	...	518	...	605
ABSTRACT FOR THE CIRCLE.																				
Timber, c. ft.	11,434	1,254	8,610	1,016	1,00,471	93,472	1,15,135	1,21,527	1,00,618	84,501	67,139	49,791	2,01,089	1,77,973	1,82,274	1,71,318	85,600	56,907	1,05,384	93,924
Firewood, mds. ...	33,607	12,718	21,027	9,730	4,822	1,574	11,127	3,900	62,140	22,242	74,156	26,485	66,962	23,816	85,283	30,389	55,835	19,916	70,885	25,833
Charcoal " ...	...	...	...	...	6,948	6,567	8,590	8,258	8,066	7,710	1,019	914	15,014	14,277	9,609	9,172	6,232	5,851	4,164	4,076
Lime "	926	108	1,140	120	659	353	924	462	593	208	82	41	1,252	561	1,006	503	384	87	1,000	500
Poles, c. ft.	18,725	6,170	40,046	10,474	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, kurias, no. ...	8,01,271	2,940	5,08,859	1,957	30,944	224	6,545	60	3,48,764	1,996	4,12,338	2,498	3,79,708	2,220	4,18,883	2,558	3,73,163	2,160	3,58,395	2,061
Minor produce ...	1,25,680	323	90,684	458	8,760	44	26,066	183	68,865	673	62,595	328	77,625	717	88,661	411	50,880	516	53,325	546
Total ...	...	23,513	...	23,755	...	1,02,234	...	1,34,390	...	1,17,330	...	79,961	...	2,19,564	...	2,14,351	...	85,437	...	1,26,440

E.—Statement showing disposal of produce by Government Agency, &c.—(concluded).

Divisions and description of produce.	Depôt Transactions—(*concld.*)																			
	Converted in depôt.				*Lost or written off as useless.*				*Used by the department from depôt.*				*Total issues from depôt.*				*Balance in hand at close of the year.*			
	1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Lalipur.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, c. ft. ...	...	...	...	...	...	...	...	...	...	...	...	...	2,732	182	802	62	...	...	554	46
Bamboos, no. ...	...	...	...	...	...	...	...	...	...	...	...	...	3,53,599	1,965	3,37,397	1,905	1,554	9	49,254	326
Minor produce, kurias ...	...	...	...	...	...	...	...	...	679	5	...	...	28,126	205	15,561	116	...	...	7,923	59
Total ...	...	...	...	...	...	...	...	...	...	5	...	...	...	2,352	...	2,083	...	9	...	431
Bánda.																				
Timber, c. ft. ...	...	...	...	...	...	...	...	...	...	...	6	...	2,835	369	4,821	541	1,604	277	1,323	336
Bamboos, no. ...	...	...	...	...	...	...	...	...	...	...	...	...	1,225	122	11,932	64	700	7	5,564	111
Lime, mds. ...	...	...	...	...	...	...	...	...	...	...	...	...	224	27	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	...	...	6	...	...	518	...	605	...	284	...	447
ABSTRACT FOR THE CIRCLE.																				
Timber, c. ft. ...	...	...	...	...	27	20	557	...	418	177	441	264	86,054	57,104	1,06,382	94,188	1,15,135	1,21,527	75,392	77,134
Firewood, mds. ...	...	...	...	...	...	...	32	6	...	...	1	...	55,835	19,916	70,924	25,339	11,127	3,900	14,359	5,059
Charcoal " ...	...	...	...	...	...	...	57	28	192	168	2,148	2,148	6,424	6,019	6,369	6,252	8,590	8,258	3,240	2,916
Lime " ...	...	...	...	...	...	...	...	...	24	12	6	3	328	99	1,006	503	924	462	...	...
Poles, c. ft. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, no. ...	...	...	...	...	...	...	...	...	...	...	200	4	3,73,163	2,160	3,58,595	2,065	6,545	60	60,388	493
Minor produce, kurias ...	...	...	...	...	...	...	155	4	679	5	20	1	51,559	521	53,500	551	26,066	183	35,161	163
Total ...	...	...	...	...	...	20	...	38	...	362	...	2,420	...	85,819	...	1,28,898	...	1,34,390	...	85,756

This statement has been drawn up in the form prescribed by Government in its letter No. 37, dated the 19th January, 1884. It is one of the three abstracts therein prescribed. It shows separately the produce sold locally and that disposed of from depôts. The abstract at foot of the form shows that the value of produce sold locally was Rs. 23,755 as compared with Rs. 23,513 during the previous year, the value of produce sold from depôts Rs. 1,26,440 as compared with Rs. 85,437 during 1882-83, and that the value of stock at the close of the year was Rs. 85,756 against Rs. 1,34,390 at the commencement of the year, net difference Rs. 48,634 against the year. As explained under D., the Garhwál and Ganges Divisions have sold off all their stock, and the stock of the Kumaun Division has been considerably diminished.

The sales of timber from depôts will be less next year than this, and less again the year following.

The system of allowing the trees to be cut and exported by private enterprise is so superior in every way to the old plan that it has been decided to have no departmental timber works at all in future in the Kumaun, Garhwál, and Ganges Divisions. There is no timber on stock in the two latter Divisions, and the Rs. 76,214 worth in the Kumaun Division depôts will probably all be sold off during the current year.

(2)—Removal of produce by purchasers.

85. Annual return No. 63 shows the results of exploitation by the direct system of removal by purchasers.

In the following statement the abstracts at the foot of Form No. 63 for the past and present years are reproduced :—

Timber.

1882-83.			1883-84.		
Description.	Number or quantity.	Amount of revenue.	Description.	Number or quantity.	Amount of revenue.
	Cubic feet.	Rs.		Cubic feet.	Rs.
Sál	248,666	1,33,490	Sál	313,239	1,77,753
Haldu	79,381	14,903	Haldu	60,656	14,270
Sein	20,880	4,550	Sein	16,424	4,382
Chír	8,302	612	Chír	19,887	1,756
Jaman	2,295	430	Jaman	56	14
Sisham and kokat ...	11,476	3,560	Sisham and kokat ...	79,940	11,505
Tún	1,919	689	Tún	6,753	2,125
Semal	2,760	345	Deodar	55,440	14,034
Deodar	794	173	Sándan	13,494	4,815
Sandan	12,742	4,025	Alder	133	17
Katrukh	30,302	1,479	Oak	113	9
Kolai	32	2	Khair	27,528	10,676
Alder	93	12	Miscellaneous	11,422	715
Gethi	10	4			
Khair	17,733	7,924			
Ebony	47	94			
Miscellaneous	11,664	655			
Total timber ...	448,596	1,72,857	Total timber ...	604,485	2,42,271

Other produce.

1882-83.			1883-84.		
Description.	Number or quantity.	Amount of revenue.	Description.	Number or quantity.	Amount of revenue.
		Rs.			Rs.
Charpoys No.	199	12	Charpoys No.	287	18
Kurias "	234,350	586	Kurias "	203,612	510
Firewood Mds.	2,14,811	7,506	Firewood Mds.	2,23,178	7,695
Firewood, tickets 3,252 "	61,952	1,626	Firewood tickets 3,328 "	66,560	1,664
" by contract ...	...	589	" by contract ...	...	414
Charcoal Mds.	2,057	608	Charcoal Mds.	21,526	2,823
" by contract "	...	9	" by contract ...	...	50
Ghingaru sticks ...	...	20	Ghingaru sticks ...	...	20
Bamboos No.	19,124,788	69,701	Bamboos No.	21,510,235	80,147
" by contract ...	...	67	" by contracts ...	...	160
Ringal head-loads	171	21	Ringal head-loads	157	19
Grazing ...	...	19,555	Grazing ...	...	20,469
Other minor produce ...	...	25,734	Other minor produce ...	...	30,491
Total ...	...	1,26,034	Total ...	...	1,44,480
Add for timber ...	...	1,72,857	Add for timber ...	...	2,42,271
Total revenue under II ...	...	2,98,891	Total revenue under II. ...	...	3,86,751

86. The following table shows the amount and value of timber exported by purchasers during 1882-83 and 1883-84 from each Division :—

Divisions.	1882-83.					1883-84.				
	Sál.	Deodar.	Other kinds.	Total of all kinds.	Amount of revenue.	Sál.	Deodar.	Other kinds.	Total of all kinds.	Amount of revenue.
	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.
Naini Tal ...	...	...	791	791	80	36	...	3,660	3,695	522
Ranikhet ...	...	...	8,288	8,288	609	...	...	17,689	17,689	1,349
Kumaun ...	113,031	...	104,130	2,17,161	79,231	169,207	...	107,330	276,537	126,871
Garhwál ...	123,651	...	52,626	1,76,277	81,143	135,558	...	74,803	210,361	90,773
Ganges ...	11,984	794	22,311	35,089	11,200	8,489	55,440	22,140	86,019	22,114
Jhánsi ...	...	...	96	96	10	...	...	113	113	2
Lalitpur ...	...	...	10,894	10,894	496	...	...	10,071	10,071	428
Bánda ...	By contract; quantity of timber not given.				88	By contract; quantity of timber not given.				205
Total ...	248,666	794	1,99,136	4,48,596	1,72,857	3,13,239	55,440	2,35,806	6,04,485	2,42,271

(3)—Free Grants of Forest Produce.

87. The following statement, with footnotes, shows the free grants of the year, compared with those of the previous year :—

Divisions.	Sál.		Deodar.		Sisham.		Tún.		Chír.		Oak.		Miscellaneous.		Bamboos.	Total, 1883-84.			Total, 1882-83.			Difference.	
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	No.	C. ft.	Value.	No.	C. ft.	Value.	C. ft.	Value.
																		Rs.			Rs.		Rs.
Naini Tal ...	...	...	...	...	...	...	...	...	114	1,954	142	2,660	1,877	9,106	...	2,133	13,720	1,264	431	8,125	544	+5,595	+720
Ránikhet ...	...	...	...	...	...	...	...	...	7,983	98,442	557	9,228	6	24	...	8,546	100,694	8,308	8,315	93,956	7,654	+6,738	+654
Kumaun ...	459	17,266	...	...	3	60	...	...	...	...	...	...	244	3,892	26,130	706	21,218	17,570	(a) 793	(b) 16,881	(c) 16,795	(d) +4,337	(e) +775
Garhwál ...	12	223	...	...	...	...	...	...	...	...	...	...	4	328	...	16	551	172	11	304	124	+247	+48
Ganges ...	...	...	131	4,585	...	...	29	870	...	...	...	...	...	...	...	160	5,455	1,026	134	4,230	503	+1,225	+523
Jhánsi ...	...	...	...	...	...	...	...	...	...	...	...	...	29	87	...	29	87	5	(f) 16	(g) 48	(h) 3	(i) +39	(k) +2
Lalitpur ...	...	...	...	...	...	...	...	...	...	...	...	...	749	1,124	...	749	1,124	187	...	...	...	+1,124	+187
Bánda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	471	17,489	131	4,585	3	60	29	870	8,097	1,00,396	699	4,888	2,909	14,561	26,130	12,339	142,849	28,532	(l) 9,700	(m) 1,22,544	(n) 25,623	(o) +19,305	(p) +2,909

Naini Tal Division.—Of the 114 chír trees = 1,954 cubic feet.

11	= 330	,,	were given to the Public Works Department for repair of road bridges.
and 103	= 1,624	,,	to villagers.
114	= 1,954		

Of the 142 oak trees = 2,660 ,,

132	= 2,580	,,	were given to the Public Works Department.
10	= 80	,,	to villagers.
142	= 2,660		

and of the 1,877 miscellaneous trees = 9,106 ,,

345	= 7,435	,,	were given to the Public Works Department,
and 1,532 (mostly poles)	= 1,671	,,	to villagers.
1,877	9,106		

Ráníkhet Division.—The whole of the free grants in this Division were given to village right-holders.

Kumaun Division.—The following are the particulars of the free grants in this Division :—

				Value Rs.	
Of the 459 sál trees	=	17,266 c. ft.—			
200	„ =	13,909	„ =	14,108	were given to His Highness the Nawab of Rampur.
20	„ =	623	„ =	389	for Kumaun Provincial Bridge Works.
53	„ =	778	„ =	681	for the Thanakpur thana.
33	„ =	573	„ =	448	for Kumaun Provincial Works.
153	„ =	1,383	„ =	864	to villagers.
Total 459	„ =	17,266	„ =	16,490	

The 3 sisham trees = 60 c. ft.			=	19	were given to villagers.
and of the 244 miscellaneous trees			=	3,892—	
128	„ =	2,001	„ =	542	were given for the Thanakpur thana.
105	„ =	1,437	„ =	406	to the Kumaun Provincial Works.
and 11	„ =	454	„ =	113	to villagers.
Total 244	„ =	3,892	„ =	1,061	

Total 706 green trees of kinds=12,218 cubic feet=Rs. 17,570, as shown in the tabular statement.

Besides the above there was given to the Tharus of the Tarái district free of charge :—

			Rs.
Sál timber from dry fallen trees	1,020 c. ft.	=	510
Sisham ditto ditto	16,839 „	=	5,262
Katrukh ditto ditto	3,469 „	=	434
Fuel	49,632 mds.	=	6,204
Thatching-grass	956 loads	=	147
Bamboos	1,306½ scores	=	78
Total value of free grants during the year			30,205

The tabular statement shows that 16,881 cubic feet of timber = Rs. 16,795 were given away free in this Division during the previous year; this does not include the dry and fallen trees given to the Tharus of the Tarái district, the value of which was Rs. 8,000.

But, in addition to the timber, fuel, thatching-grass, limestone, and bamboos, estimated as worth Rs. 7,025 more, was given, total value of free grants in 1882-83 = Rs. 31,820, as compared with Rs. 30,205 in 1883-84; the sál timber given free to His Highness the Nawab of Rampur being estimated to be worth Rs. 14,108, or nearly half of the value of the entire grants of the year.

Garhwál Division.—Total value of the grants of year Rs. 172, as compared with Rs. 124 in the previous year.

Ganges Division.—Value of the grants of the year Rs. 1,026, against Rs. 503 in 1882-83. This was all given to the subjects of His Highness the Raja of Tehri from the leased forests.

Lalitpur Division.—In addition to the timber shown in the statement, firewood, brushwood, and kurias to the estimated value of Rs. 22 was given to village right-holders, and Rs. 250 worth of teak timber to the Lalitpur church. This last was given under sanction of G. O. No. 1623, dated 8th May, 1883. The total value of free grants in the Lalitpur Division amounts to Rs. 459.

Bánda Division.—None were made. The Collector reports that Jagmohan Ram, zamindar of mauzas Ranipur, &c., applied for a free grant of timber, &c., but that his application was not sanctioned by Mr. Markham, who reported the matter to Government, holding that the izázatnama held by the applicant should be repudiated by Government, as executed by Mr. Rose, Joint Magistrate, under a misconception. The total value of grants of the year amounts to Rs. 41,439, as compared with Rs. 40,657 of the previous year.

(4)—SUMMARY OF PRODUCE REMOVED FROM THE FORESTS.

88. This is shown in the following two summaries:—

(1)—Statement of trees felled.

(2)—Yield in produce.

89. (1)—*Statement of Trees felled.*

Naini Tal Division.

Description of trees.	Selection fellings.									
	By Government agency.		By purchasers.		By Public Works Department free of charge.		By villagers.		Total.	
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Chir	293	12,400	116	2,247	11	330	103	1,624	523	16,601
Oak	142	6,050	2	65	132	2,580	10	80	296	8,775
Sál	...	...	1	35	...	...	...	...	1	35
Miscellaneous	94	2,538	1,287	2,678	345	7,435	1,532	1,671	3,258	14,322
Total ... 1883-84 ...	529	20,988	1,406	5,025	488	10,345	1,645	3,375	4,068	39,733
Total ... 1882-83 ...	2,936	113,189	695	911	116	4,480	315	3,645	4,062	122,225
Difference ...	−2,407	−92,201	+711	+4,114	+372	+5,865	+1,330	−270	+6	−82,492

Ránikhet Division.

Description of trees.	Selection fellings.										Clearances.		Grand Total.	
	By Government agency.		By Public Works Department.		By contractors.		By villagers.		Total.		By Government agency.			
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Chir	1,569	28,390	90	270	245	17,356	7,983	98,442	9,887	1,44,458	3,381	34,912	13,268	179,370
Oak	22	372	...	...	3	63	557	2,228	582	2,663	10	68	592	2,731
Miscellaneous	56	576	...	...	...	...	6	24	62	600	25	26	87	626
Total ... 1883-84 ...	1,647	29,338	90	270	248	17,419	8,546	100,694	10,531	147,721	3,416	35,006	13,947	182,727
Total ... 1882-83 ...	3,418	35,803	24	3,120	81	5,168	8,315	93,956	11,838	138,047	2,428	27,094	14,266	165,141
Difference ...	−1,771	−6,465	+66	−2,850	+167	+12,251	+231	+6,738	−1,307	+9,674	+988	+7,912	−319	+17,586

Kumaun Division.

Description of trees.	Selection fellings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers, &c. No.	C. ft.	Total. No.	C. ft.	Thinnings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers, &c. No.	C. ft.	Total. No.	C. ft.	Clearances. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers, &c. No.	C. ft.	Total. No.	C. ft.	Grand Total. No.	C. ft.
Sál	1,469	19,134	5,352	89,716	459	17,266	7,280	123,116	364	3,934	...	...	...	...	364	3,934	2,338	16,933	...	...	...	...	2,338	16,933	9,983	143,983
Sein	4	224	...	...	...	...	4	224	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	224
Shisham	2	8	...	...	3	60	5	68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	68
Miscellaneous	15	60	7,327	73,200	244	3,892	7,586	77,152	33	185	...	...	...	...	33	185	2,011	14,989	...	...	...	...	2,011	14,989	7,619	77,337
Total { 1883-84 ...	1,490	19,426	12,679	159,916	706	21,218	14,875	200,560	397	4,119	...	...	...	...	397	4,119	4,349	31,922	...	...	...	...	4,349	31,922	19,631	236,601
Total { 1882-83 ...	1,429	36,153	882	18,031	302	13,778	2,629	67,962	...	...	1,113	7,056	132	355	1,245	7,411	1,962	21,424	2,841	49,146	359	2,748	4,262	73,318	8,120	148,691
Difference ..	+61	−16,727	+11,787	+141,885	+404	+7,440	+12,252	+132,598	+397	+4,119	−1,113	−7,056	−132	−355	−848	−3,292	+3,287	+10,498	−2,841	−49,146	−359	−2,748	+87	−41,396	+11,491	+87,910
	For depôt stock and departmental work.		More timber removed.						Thinnings in sample plots, chiefly unsaleable poles and saplings.								Clearances in fire-lines, chiefly unsaleable poles and saplings.									

Garhwál Division.

Description of trees.	Selection fellings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers, &c. No.	C. ft.	Total. No.	C. ft.	Thinnings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers, &c. No.	C. ft.	Total. No.	C. ft.	Clearances. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers, &c. No.	C. ft.	Total. No.	C. ft.	Total. No.	C. ft.	Dry and fallen timber. C. ft.	Grand total, including trees and dry and fallen timber. No.	C. ft.
Sál... ...	...	...	1,602	56,877	12	223	1,614	57,100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,614	57,100	Sál ... 78,681	1,614	58,714
Sein ..	...	...	100	4,849	...	...	100	4,849	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	100	4,849	Sein ... 3,524	100	8,373
Miscellaneous ...	...	...	11,698	45,036	4	328	11,702	45,364	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11,702	45,364	Miscellaneous, 23,491	11,702	68,855
Total { 1883-84,	...	...	13,400	1,06,762	16	551	13,416	1,07,313	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13,416	1,07,313	... 1,05,696	13,416	2,13,009
Total { 1882-83,	...	...	4,689	61,393	11	304	4,700	61,697	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,700	61,697	... 1,15,037	4,700	1,76,734
Difference ..	...	...	+8,711	+45,369	+5	+247	+8,716	+45,616	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,716	45,616	... −9,341	+8,716	+36,275

Ganges Division.

Description of trees.	Selection fellings.								Thinnings.								Clearances.								Grand Total.	
	By Government agency.		By contractors.		By villagers.		Total.		By Government agency.		By contractors.		By villagers.		Total.		By Government agency.		By contractors.		By villagers.		Total.			
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C ft.	No.	C.ft.	No.	C.ft.	No.	C.ft.	No.	C ft.	No.	C.ft.	No.	C.ft.	No.	C.ft	No.	C. ft.
Sál	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sein	...	...	120	2,516	...	...	120	2,516	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	120	2,516
Deodar	...	...	924	55,440	131	4,585	1,055	60,025	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,055	60,025
Tún	3	162	...	...	29	870	32	1,032	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32	1,032
Sisham	5	227	40	809	...	...	45	1,036	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45	1,036
Chír	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Boxwood	209	556	...	...	...	...	200	556	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	200	556
Miscellaneous ...	4,710	13,047	42	595	...	...	4,752	13,642	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,752	13,642
Total 1883-84 ...	4,918	13,992	1,126	59,360	160	5,455	6,204	78,807	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6,204	78,807
Total 1882-83 ...	11,639	73,481	123	4,822	134	4,230	11,876	82,223	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11,876	82,223
Difference ...	−6,721	−59,489	+1,003	+54,538	+26	+1,225	−5,672	−3,416	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	−5,672	−3,416

Jhánsi Division.

Description of trees.	Selection fellings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Thinnings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Clearances. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Grand Total. No.	C. ft.
Miscellaneous	561	1,683	70	210	29	87	660	1,980	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	660	1,980
Total 1883-84 ...	561	1,683	70	210	29	87	660	1,980	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	660	1,980
Total 1882-83 ...	471	1,413	80	240	16	48	567	1,701	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	567	1,701
Difference ...	+90	+270	−10	−30	+13	+39	+93	+279	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	+93	+279

Lalitpur Division.

Description of trees.	Selection fellings. By Government agency No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Thinnings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Clearances. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Grand Total. No.	C. ft.
Teak	4	10	...	...	...	...	4	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	10
Miscellaneous	2,891	5,009	5,182	10,101	749	1,124	8,822	16,234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,822	16,234
Total 1883-84 ...	2,895	5,019	5,182	10,101	749	1,124	8,826	16,244	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,826	16,944
Total 1882-83 ...	3,574	5,842	6,914	9,638	...	...	10,488	15,480	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,488	15,480
Difference ...	−679	−823	−1,732	+463	+749	+1,124	−1,662	+764	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	−1,662	×764

Abstract of Trees felled for the Circle.

Description of trees.	Selection fellings.								Thinnings.							
	By Government agency.		By contractors.		By villagers.		Total.		By Government agency.		By contractors.		By villagers.		Total.	
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Chír ...	1,862	40,790	451	19,873	8,097	100,396	10,410	1,61,059	...	...	...	...	...	...	...	...
Oak ...	164	6,422	5	128	699	4,888	868	11,438	...	...	...	...	...	...	...	...
Sál ...	1,469	19,134	6,955	143,628	471	17,489	8,895	180,251	364	3,934	...	...	...	...	364	3,934
Sein ...	4	224	220	7,365	...	...	224	7,589	...	...	...	...	...	...	...	...
Deodar ...	...	...	924	55,440	131	4,585	1,055	60,025	...	...	...	...	...	...	...	...
Tún ...	3	162	...	...	29	870	32	1,034	...	...	...	...	...	...	...	...
Sisham ...	7	235	40	809	3	60	50	1,104	...	...	...	...	...	...	...	...
Boxwood ...	200	556	...	...	...	...	200	556	...	...	...	...	...	...	...	...
Teak ...	4	10	...	...	...	...	4	10	...	...	...	...	...	...	...	...
Miscellaneous ...	8,327	22,913	25,606	131,820	2,909	14,561	36,842	169,294	33	185	...	...	...	...	33	185
Total 1883-84 ...	12,040	90,446	34,201	359,063	12,339	142,849	58,580	592,360	397	4,119	...	...	...	...	397	4,119
Total 1882-83 ...	23,467	265,881	13,614	107,503	9,093	115,961	46,174	489,345	...	...	1,113	7,056	132	355	1,245	7,411
Difference ...	− 11,427	− 175,435	+ 20,587	+ 251,560	+ 3,246	+ 26,888	+ 12,406	+ 103,015	+ 397	+ 4,119	− 1,113	− 7,056	− 132	− 355	− 848	− 3,292

Abstract of Trees felled for the Circle—(concluded).

Description of trees.	Clearances. By Government agency. No.	Clearances. By Government agency. C. ft.	Clearances. By contractors. No.	Clearances. By contractors. C. ft.	Clearances. By villagers. No.	Clearances. By villagers. C. ft.	Clearances. Total. No.	Clearances. Total. C. ft.	Total. No.	Total. C. ft.	Dry and fallen timber removed by purchasers.	Dry and fallen timber removed by purchasers. C. ft.	Grand Total, including trees and dry and fallen timber. No.	Grand Total, including trees and dry and fallen timber. C. ft.
Chír ...	3,381	34,912	...	...	...	...	3,381	34,912	13,791	195,971	...	...	13,791	195,971
Oak ...	10	68	...	...	...	...	10	68	878	11,506	...	...	878	11,506
Sál ...	2,338	16,933	...	...	...	...	2,338	16,933	11,597	201,118	Sál ...	78,681	11,597	279,799
Sein ...	...	...	...	...	...	...	...	...	224	7,589	Sein ...	3,524	224	11,113
Deodar ...	...	...	...	...	...	...	...	...	1,055	60,025	...	...	1,055	60,025
Tún ...	...	...	...	...	...	...	...	...	32	1,034	...	...	32	1,034
Sisham ...	...	...	...	...	...	...	...	...	50	1,104	...	...	50	1,104
Boxwood ...	...	...	...	...	...	...	...	...	200	556	...	...	200	556
Teak ...	...	...	...	...	...	...	...	...	4	10	...	...	4	10
Miscellaneous ...	2,036	15,015	...	...	...	...	2,036	15,015	38,911	184,494	Miscellaneous ...	23,491	38,911	207,985
Total 1883-84 ...	7,765	66,928	...	...	...	...	7,765	66,928	66,742	663,407	...	1,05,696	66,742	769,103
Total 1882-83 ...	3,490	48,518	2,841	49,146	359	2,748	6,690	100,412	54,109	597,168	...	1,15,037	54,109	712,205
Difference ...	+ 4,275	+ 18,410	− 2,841	− 49,146	− 359	− 2,748	+ 1,075	− 33,474	+ 12,633	+ 66,239	...	− 9,341	+ 12,633	+ 56,898

The abstract at the foot of this statement shows that the total fellings in 1883-84 amounted to 66,742 trees yielding 663,407 cubic feet of timber, as compared with 54,109 trees yielding 597,168 cubic feet in 1882-83. Poles and saplings are included in both years' fellings. But in addition to the above yield, which was from *trees actually felled*, 105,696 cubic feet of dry and fallen timber were removed by exporters during the year, and 115,037 cubic feet in the previous year, as shown separately in the abstract.

Adding these figures together the total yield given in the last column of the abstract is arrived at, *viz.*, 769,103 cubic feet of timber in 1883-84 against 712,205 cubic feet in 1882-83.

Of the 66,742 trees felled altogether in 1883-84, 20,202 giving 161,493 cubic feet were felled by Government agency, 34,201 yielding (including the whole of dry and fallen timber) 464,761 cubic feet were removed by purchasers under the direct system, and 12,339 trees yielding 142,849 cubic feet by villagers. The latter are all free grants and the particulars are given under the foregoing sub-head—"Free grants of forest produce."

These figures compare, respectively, as follows with those of 1882-83:—

	Trees.		C. ft.
Government agency	26,957	=	314,399
Direct agency, including dry and fallen wood ...	17,568	=	278,742
Villagers	9,584	=	119,064
Total ...	54,109	=	712,205

Naini Tál Division.—The fellings were less by 82,492 cubic feet. The reason for the decrease is given in sub-head I. of this chapter.

Ránikhet Division.—The fellings exceeded that of the previous year by 17,586 cubic feet; contractors took 12,251 cubic feet more, and free grants to villagers make up the balance.

Kumaun Division.—11,491 more trees, representing 87,910 cubic feet, were felled than in 1882-83. Under the direct system 11,787 more trees, equal to 141,885 feet of timber, were removed under "selection fellings" than in the previous year; whilst under "clearances" there is a decrease under the direct system of 2,841 trees, equal to 49,146 feet of timber.

Garhwál Division.—8,716 more trees, representing 36,275 cubic feet of timber, felled than in 1882-83, almost the whole of the increase occurring under fellings under the direct system.

Ganges Division.—5,672 trees and 3,416 feet less timber cut than in 1882-83; but the fellings under the direct system exceeded those of 1882-83 by 1,003 trees, representing 54,838 feet of timber. The fellings by Government agency were less than in 1882-83 by 6,721 trees, representing 59,489 feet of timber.

(2)—*Yield in Produce.*

90. This is shown in the following summary:—

Naini Tal Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	86,403	54,002	21,810	13,631
Poles	number ...	2,039	221	2,848	235
Ringals	loads ...	171	21	157	20
Bamboos	score ...	2	1	...	...
Firewood	maunds ...	33,357	12,664	21,027	9,729
Charcoal	" ...	866	866	658	658
Minor produce	... ...	...	1,894	...	2,456
Grazing dues	... ...	...	226	...	82
Total	... ...	...	69,895	...	26,811

Ránikhet Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value
			Rs.		Rs.
Timber	cubic feet ...	58,376	4,778	73,990	6,088
Poles	number ...	10,188	4,152	8,983	3,984
Firewood	maunds ...	59,186	21,008	76,443	26,927
Charcoal	" ...	521	98	...	...
Minor produce	...	...	628	...	722
Grazing dues	...	...	474	...	572
Total	...	...	31,138	...	38,293

Kumaun Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	325,258	1,31,725	3,74,550	1,81,447
Bamboos	scores ...	111,663	9,480	2,12,950	15,244
Firewood and charcoal ...	maunds ...	32,340	4,042	40,505	5,063
Minor produce	...	...	13,935	...	16,649
Grazing dues	...	...	8,025	...	8,405
Total	...	...	1,67,207	...	2,26,208

Garhwál Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	148,757	71,251	177,836	80,934
Saplings	number ...	2,841	900	3,047	1,524
Poles	" ...	25,136	9,298	37,264	13,939
Bamboos	scores ...	350,188	23,859	375,432	27,252
Firewood	maunds ...	71,247	1,262	67,323	1,296
Charcoal	" ...	20	4	1,151	143
Minor produce	...	...	4,999	...	5,661
Grazing dues	...	...	2,366	...	2,975
Total	...	...	1,13,939	...	1,33,724

Ganges Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	93,995	20,277	70,375	20,649
Poles	number ...	19,375	6,170	35,809	10,564
Bamboos	scores ...	479,259	35,573	4,71,465	36,861
Firewood	maunds ...	98,371	1,908	99,948	1,991
Minor produce	...	...	1,859	...	3,042
Grazing dues	...	...	1,821	...	2,353
Total	...	...	67,608	...	75,460

Jhánsi Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	535	57	631	69
Bamboos	scores ...	324	65	527	112
Firewood	maunds ...	2,934	488	19,430	1,903
Charcoal	" ...	2,070	718	707	302
Minor produce	...	...	3,603	...	5,009
Total		...	4,931	...	7,395

Lalitpur Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	117	25	20	3
Poles	number ...	10,016	952	11,522	1,308
Saplings	" ...	...	...	...	...
Bamboos	scores ...	71,873	5,500	58,497	4,784
Firewood and charcoal	maunds ...	96,800	121	188,750	266
Minor produce	...	...	2,472	...	2,614
Grazing dues	...	...	3,269	...	2,873
Total		...	12,339	...	11,838

Bánda Division.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Poles	number ...	...	942	5,269	1,456
Bamboos	scores ...	...	247	1,274	347
Firewood	...	...	369	...	186
Charcoal	...			...	40
Minor produce	...	...	2,885	...	2,794
Grazing dues	...	...	767	...	524
Total		...	5,210	...	5,347

Abstract for the Circle.

Produce.		1882-83.		1883-84.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	718,541	2,82,115	719,212	3,02,821
Poles	number ...	66,754	21,735	101,695	31,486
Saplings	" ...	2,841	900	3,047	1,524
Ringals	loads ...	171	21	157	20
Bamboos	scores ...	1,013,509	74,725	1,120,145	84,690
Firewood	maunds ...	394,235	41,862	513,426	47,351
Charcoal	" ...	3,477	1,686	2,516	1,143
Minor produce	...	...	32,275	...	38,347
Grazing dues	...	...	16,948	...	17,784
Total		...	4,72,207	...	5,25,076

The abstract with which this summary concludes shows that the *estimated value of the yield in material of the year itself* was Rs. 5,25,076 as compared with Rs. 4,72,267 in 1882-83. The *actual revenue of the year* is Rs. 5,34,280, and that of 1882-83 was Rs. 4,14,003. The probable receipts from Budget head "V., Miscellaneous," are not taken into account in the estimated value of the yield of the year, the revenue under this head not being derived from forest produce, but it comes into the *actual* revenue. With the exception of ringals (a species of bamboo) and charcoal, the yield under both of which was a little less than in 1882-83, there is an increase in every other kind of produce.

But whilst the above statement, which was prescribed by the Local Government, shows the *yield of the year itself*, as estimated by Divisional Officers, annual Forms Nos. 61 and 63 appended to the report give the *actual sales of the year*.

Summarizing Forms Nos. 61 and 63, the following were the actual sales of the year :—

Timber from depôts R.	c. ft.	105,384
" locally	"	48,656
" by private enterprise	"	604,485
		758,525
Firewood from depôts	mds.	70,885
" locally	"	21,027
" by private enterprize	"	223,178
		315,090
Charcoal from depôts	"	4,164
" locally	"	...
" by private enterprize	"	21,526
		25,690
Bamboos from depôts	scores.	17,919
" locally	"	25,442
" by private enterprize	"	1,075,511
		1,118,872

Placing these figures in juxtaposition to those given in the statement of yield of produce, the differences are as follows :—

		Actual sales of the year, as per Forms Nos. 61 and 63.	Yield of produce of the year.	Difference.
Timber ...	c. ft.	758,525	772,106	14,581
Firewood ...	mds.	315,090	513,426	198,336
Charcoal ...	"	25,690	2,516	23,174
Bamboos ...	scores	1,118,872	1,120,145	1,273

Minor produce has been omitted from both sides. The sub-head of this chapter (4), being "Summary of Produce removed from the Forests," Forms Nos. 61 and 63, of course, give truer results than the summary prescribed by Government.

Those forms are compiled from the monthly returns, which are checked by the Comptroller-General, whereas the Government summary is more or less an *estimate*.

Reducing the entire yield in materials to cubic feet, the results are as follows :—

	1882-83. Cubic feet.	1883-84. Cubic feet.
Timber	713,541	719,212
Poles	33,377	50,847
Saplings...	2,841	3,047
Firewood	788,470	1,026,652
Charcoal...	27,816	20,128
Total ...	1,566,045	1,820,086

The above figures have been taken from the summary to the statement of the yield in produce, bamboos being excluded. Two cubic feet of wood have been taken as equal to a maund of firewood and 8 cubic feet to the maund of charcoal.

The area of the forests, the Bánda Division Government villages included, being 1,059,797 acres, this gives a yield per acre of about 1½ cubic foot in 1882-83 and about 2 cubic feet in 1883-84.

CHAPTER V.

FINANCIAL RESULTS.

91. Forms Nos. 53 to 57 appended to the report give the financial figures of the year in full detail.

92. In the following statement the receipts, expenditure, surplus, and percentage of expenditure to receipts are shown since the year 1879-80, when these forests became the Central Circle :—

	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts	3,67,601	4,57,606	5,04,037	4,14,003	5,34,280
Expenditure	2,32,234	2,62,437	3,04,893	2,86,648	2,65,892
Surplus	1,35,367	1,95,169	1,99,144	1,27,355	2,68,388
Percentage of expenditure to receipts,	63·17	57·35	60·49	69·21	49·76

or, for 1883-84, a proportion of surplus to gross revenue in per cent. of 50·24.

The financial results compare most favourably with those of preceding years. The decreased percentage of expenditure to receipts and the increase in surplus are due to the development of the system of fellings by private enterprize instead of by departmental agency.

93. The following statement exhibits the receipts and expenditure in each Division compared with the figures of the previous year :—

Division.	*Receipts.*		*Difference.*		*Expenditure.*		*Difference.*	
	1882-83.	1883-84.	More.	Less.	1882-83.	1883-84.	More.	Less.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	Nil	2	2	...	24,215	25,537	1,322	...
Naini Tal	35,235	28,625	...	6,610	32,739	27,057	...	5,682
Ránikhet	21,786	28,149	6,363	...	26,979	27,459	480	...
Kumaun	1,39,220	2,38,178	98,958	...	89,539	76,777	...	12,762
Garhwal	1,25,908	1,35,626	9,718	...	54,369	58,862	4,493	...
Ganges	67,876	77,323	9,447	...	46,731	38,023	...	8,708
Jhánsi	4,857	7,673	2,816	...	3,707	3,319	...	388
Lalitpur	12,341	10,959	...	1,382	4,773	5,512	739	...
Bánda	6,780	7,745	965	...	3,596	3,346	...	250
Total ...	4,14,003	5,34,280	1,28,269	7,992	2,86,648	2,65,892	7,034	27,790

or an increase of revenue of Rs. 1,20,277 and a decrease in expenditure of Rs. 20,756 in favour of the year.

94. In the following table the receipts and charges are shown for purposes of inter-divisional comparison :—

Division.	Receipts.	Charges.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.
Direction	2	25,537	...	25,535
Naini Tal	28,625	27,057	1,568	...
Ránikhet	28,149	27,459	690	...
Kumaun	2,38,178	76,777	1,61,401	...
Garhwál	1,35,626	58,862	76,764	...
Ganges	77,323	38,023	39,300	...
Jhánsi	7,673	3,319	4,354	...
Lalitpur	10,959	5,512	5,447	...
Bánda	7,745	3,346	4,399	...
Total ...	5,34,280	2,65,892	2,93,923	25,535

The three large Divisions—Kumaun, Garhwál, and Ganges—show very handsome surpluses, the surplus to gross revenue being in the proportion in per cent of Rs. 67, 56, and 51 respectively; and so do also the forests under charge of the district officers, whilst the two hill Divisions of Naini Tal and Ránikhet have only saved themselves from a deficit.

95. Arranged under the main head of receipts and charges, the financial results are (*vide* Form No. 57 appended to the report) as follow :—

Headings.	Receipts.		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs.		Rs.	
I.—Departmental operations,	1,37,926	I.	1,13,118	A. $\left(\text{I.}+\text{V.}+\frac{\text{VI.}}{2}+\frac{\text{VII.}}{3}+\frac{\text{IX.}}{3}\right)+\frac{\text{B.}}{3}+$ Direction Rs. 8,511.
II.—Other revenue ...	3,96,354	II, III., IV., and V.	71,258	A. $\left(\text{II.}+\text{III.}+\text{IV.}+\frac{\text{VII.}}{3}+\frac{\text{IX}}{3}\right)+\frac{\text{B.}}{3}+$ Direction Rs. 8,511.
III.—Formation, protection, and improvement of forests.	...	...	81,516	A. $\left(\frac{\text{VI.}}{2}+\frac{\text{VII.}}{3}+\text{VIII.}+\frac{\text{IX.}}{3}\right)+\frac{\text{B.}}{3}+$ Direction Rs. 8,515.
Total ...	5,34,280	...	2,65,892	

showing a surplus of Rs. 24,808 on departmental operations, a surplus of Rs. 3,25,096 on other revenue, and an expenditure of Rs. 81,516 on the formation, protection, and improvement of the forests.

96. The figures compared with the previous year are as follow :—

	1882-83.		1883-84.	
	Surplus.	Deficit.	Surplus.	Deficit.
	Rs.	Rs.	Rs.	Rs.
I.—Departmental timber operations ...	25,701	...	24,808	...
II.—Other revenue	2,35,433	...	3,25,096	...
III.—Formation, &c.	...	82,377	...	81,516
Total ...	2,61,134	...	3,49,904	...

Whilst the surplus under departmental operations is nearly what it was in the previous year, the table which follows and gives the expenditure under (A.) Conservancy and Works, shows that the direct expenditure under head I. is only Rs. 51,282 as compared with Rs. 72,559 in the previous year. But had it not been for some of the large Divisions getting rid of a good deal of their last year's stock, as pointed out in Chapter IV., the surplus under this head would have been much less. The items under "II., Other Revenue," afford a much fairer comparison. At a direct expenditure to the Department of Rs. 19,464, as compared with Rs. 18,810 in 1882-83, the surplus is Rs. 89,663 more than it was in the previous year.

97. The receipts, compared with those of the previous year, were derived from the following sources :—

Year.	Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers or purchasers.	Confiscated, drift and waif wood.	Revenue from forests not managed by Government.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1883-84	1,37,926	3,66,502	756	66	9,030	5,34,280
1882-83	1,07,656	2,98,892	634	109	6,713	4,14,003

98. The expenditure, compared with that of the previous year, under the main heads of (A) Conservancy and Works, and (B) Establishments, is shown in the following tables:—

A.

Year.	I. Timber and other produce removed from forests by Government agency.	II. Timber and other produce removed from forests by consumer or purchasers.	III. Confiscated, drift and waif wood.	IV. Revenue from forests not managed by Government agency.	V. Rent of leased forests and payments to shareholders.	VI. Live stock, stores, tools and plant.	VII. Communications and buildings.	VIII. Demarcation, improvement, and extension of forests.	IX. Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1883-84	51,282	19,464	5	...	4,424	11,263	40,582	24,096	1,432	1,52,548
1882-83	72,559	18,810	68	...	4,325	8,601	46,795	26,404	1,523	1,79,085

B.

Year.	I. Salaries.	II. Travelling allowances.	III. Contingencies.	Total.
	Rs.	Rs.	Rs.	Rs.
1883-84	98,900	10,009	4,435	1,13,344
1882-83	94,107	9,068	4,388	1,07,563

99.

The value of timber, fuel, &c., and live stock at the commencement of the year was	Rs. 2,32,134	Annual Form No. 65.
And at the close of the year	1,97,705	
Balance against the year ...	34,429	
The outstandings due to the department at the close of the year amounted to	6,482	Form No. 55.
The outstandings due by the department at the close of the year amounted to	*Nil.*	
And there was a sum of Rs. 534 due by the department at the close of the year, advance received for timber ...		Form No. 56.

The value of the year's transactions was—

Cash surplus	2,68,388
Difference of live and dead stock against the year ...	34,429
Balance ...	2,33,959
Add outstandings due to the department, minus advance of Rs. 534 due by the department	5,948
Value of the year's transactions	2,39,907

100. Here follows a brief explanation of the differences in receipts and expenditure between the years 1882-83 and 1883-84, as shown in the three tables next above.

Receipts.—The increase of Rs. 30,000 in sales of timber, &c., removed from the forests by Government agency is due to sales of timber from the depôts in the Kumaun Division. The demand was slack in 1882-83 and large stocks were left on hand.

Under "timber, &c., removed from the forests by consumers or purchasers," there is an increase of Rs. 87,600; Rs. 85,500 of this is due to the Kumaun, Garhwál, and Ganges Divisions, thus :—

			Rs.
II.(*a*) Timber	an increase of	...	68,183
II.(*b*) Firewood and charcoal,	,,	...	1,331
II.(*c*) Bamboos	,,	...	10,446
II.(*d*) Grazing and fodder grass	,,	...	1,520
II.(*e*) Other minor produce	,,	...	4,055
	Total	...	85,535

These figures show very satisfactory results. The only extraordinary item is a sum of Rs. 13,860 under II(*a*) for sale of 924 deodar trees in the leased forests.

The extraordinary item of Rs. 2,038 in the Jhánsi Division, received as compensation for land taken up by the Jhánsi-Manikpur Railway, nearly accounts for the Rs. 2,300 increase in miscellaneous receipts.

Expenditure A.—Under the head of "timber, &c., removed by Government agency" there is a decrease of Rs. 21,300; Rs. 15,500 of this is under the sub-head I.(*a*), timber, and Rs. 4,900 under I.(*b*), firewood and charcoal. The principal reason for the decrease under I.(*a*) is the curtailment of Government timber works in favour of private enterprize.

The purchase of an elephant for Rs. 2,200, in place of one which became dangerous and was sold, is the principal item in the increase under A.VI.

The decrease in VII. is under VII.(*a*), roads and bridges, in the Kumaun, Ránikhet, and Ganges Divisions. The decrease of Rs. 2,300 under VIII. is made up by slight decreases under (*a*), (*b*), (*c*), (*d*), and (*f*), and a slight increase under (*e*).

Expenditure B.—Of the Rs. 5,781 increase there is an increase of Rs. 3,842 in salaries of Conservator and superior officers and an increase of Rs. 947 in salaries of subordinate forest and depôt establishments. The balance is made up of slight differences in almost all the other sub-heads.

101. **Naini Tal Division.**—Form No. 57 shows the following figures :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	25,790	2,835	...	28,625
Charges	18,347	4,599	6,111	29,057
Surplus	7,443	...	...	...
Deficit	...	1,764	6,111	432

The charges included a sum of Rs. 2,000 quota on account of Direction Division expenditure.

The amount of outstandings due to the Division at the close of the year was Rs. 485.

Compared with 1882-83 there is a decrease in revenue of Rs. 6,610 and a decrease in expenditure of Rs. 5,682. Rs. 4,521 of the decrease in revenue is under I.(*b*), large quantities of charcoal having been supplied to residents from village and other forests. There is also a decrease of Rs. 2,567 under I.(*a*) owing to a difficulty in procuring sufficient sawyers to meet the demand for building timber. The decrease in expenditure is under A.I.(*a*) and A.I(*b*).

102. **Ránikhet Division.**—The results stand as follows :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	25,055	3,095	...	28,150
Charges	18,572	3,972	6,915	29,459
Surplus	6,483	...	...	...
Deficit	...	877	6,915	1,309

The charges contain a sum of Rs. 2,000 quota on account of Direction Division expenditure.

The amount of outstandings due to the Division at the close of the year was Rs. 500.

Compared with 1882-83 there is an increase in revenue of Rs. 6,363 and an increase in expenditure of Rs. 480. The increased revenue is chiefly made up from increases of Rs. 5,400 under I.(*b*), supply of firewood to the Commissariat Department, and of Rs. 750 under II.(*a*), sale of trees.

103. **Kumaun Division.**—The figures in Form No. 57 give the following :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	65,115	1,73,063	...	2,38,178
Charges	32,959	26,004	28,814	87,777
Surplus	32,156	1,47,059	...	1,50,401
Deficit	...	...	28,814	...

The charges included Rs. 11,000 quota of Direction Division expenditure.

The amount of outstandings due to the Division at the close of the year was Rs. 783.

Compared with 1882-83 there is an increase of Rs. 98,958 in revenue and a decrease of Rs. 12,762 in expenditure. The increase is as follows :—

	Rs.
Under I.(*a*.) an increase of	43,855
„ II.(*a*.) „	47,640
„ II.(*c*.) „	5,764

Under I.(*a*) the increase is due to selling off the large stocks of timber left on stock from the previous year. The increase under II.(*a*) is on account of the extension of the system of allowing timber to be cut and exported by merchants instead of bringing it to depôts by departmental agency. The increase under II.(*c*) is due to a favourable year and increased activity in trade.

The decrease in expenditure is over Rs. 9,000 under I.(*a*), owing to less timber having been prepared by Government agency, and over Rs. 3,000 under A. VII.

104. **Garhwál Division.**—The results stand as follows :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	5,099	1,30,527	...	1,35,626
Charges	16,860	21,941	25,061	63,862
Surplus	...	1,08,586	...	71,764
Deficit	11,761	...	25,061	...

The charges contain a quota of Rs. 5,000 on account of Direction Division expenditure.

The amount of outstandings due to the Division at the close of the year was Rs. 3,410.

Compared with 1882-83 there is an increase of Rs. 9,718 in revenue and an increase of Rs. 4,493 in expenditure.

The principal increases of revenue are Rs. 9,630 under II.A., due to more active demand for timber, and Rs. 3,393 under II.C., bamboos. These and other slight increases under other heads, combined with a decrease of Rs. 6,006 under A.I., due to very little timber having been left in stock, account for the increase in revenue.

The increased expenditure is entirely under B., the expenditure under A. having been about Rs. 3,000 less than during 1882-83.

105. **Ganges Division.**—Form No. 57 shows the following figures :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	9,034	68,288	...	77,322
Charges	19,454	11,824	9,745	41,023
Surplus	...	56,464	...	36,299
Deficit	10,420	...	9,745	...

The charges include a sum of Rs. 3,000 quota of Direction Division expenditure.

The outstandings due to the Division at the close of the year was Rs. 959.

Compared with 1882-83 there was an increase in revenue of Rs. 9,447 and a decrease in expenditure of Rs. 8,708.

The increased revenue is made up as follows :—

An increase under II(*a*) * of Rs. 10,913 (timber).
" II(*c*) " 1,289 (bamboos).
" II(*d*) " 535 (grazing, &c.)
" II(*e*) " 1,278 (other produce).
" V. " 1,500 (miscellaneous).

These sums together with other slight differences under other heads and a decrease of Rs. 5,985 under I.A. make up the increase.

The expenditure was about Rs. 4,700 less under A. and about Rs. 4,000 less under B.. The savings under A. were under A.I., A.VII., A.VIII., and A.IX., with slight increases under A.II. and A.VI.

The following is an account of the cost of sending 980 cubic feet of boxwood to England during the year :—

	Rs.
Cutting and collecting 700 pieces = 980 cubic feet and carriage (by coolies) from the forests to Rajpur	1,393
Carriage (by carts) of the above 909½ maunds from Rajpur to Saháranpur	398
Carriage (by rail) of the above from Saháranpur to Karachi... ...	1,748
Shipping charges from Karachi to England	1,184
Total ...	4,723

On receipt of the sales account a report will be submitted. Intimation has been received from Messrs. Churchill and Sim, to whom the consignment was sent, that the wood was highly appreciated and that it was selling at the rate of £25 per ton.

*Rs. 13,860 was realised from sale of 924 deodar trees in the leased forests at Rs. 15 per tree.

106. **Jhánsi Division.**—The figures in Form No. 57 give the following results :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	894	6,779	...	7,673
Expenditure	1,633	748	1,638	4,019
Surplus	...	6,031	...	3,654
Deficit	739	...	1,638	...

The charges include a sum of Rs. 700 quota on account of Direction Division expenditure.

The outstandings due to the Division at the close of the year amounted to Rs. 230.

Compared with 1882-83, the reciepts were Rs. 2,816 more and the expenditure Rs. 388 less.

The principal item which caused the increase in revenue was Rs. 2,038, which was received as compensation for some 42 acres of forest land taken up for the Jhánsi-Manikpur Railway. There was also an increase of nearly Rs. 800 for firewood supplied to the railways works.

107. **Lalitpur Division.**—The following are the results in this Division :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	4,470	6,489	...	10,959
Charges	3,195	1,202	2,252	6,649
Surplus	1,275	5,287	...	4,310
Deficit	...	...	2,252	...

The charges contain a sum of Rs. 1,137, quota of Direction Division expenditure.

The outstandings due to the Division at the close of the year were Rs. 110. Compared with 1882-83, the receipts were Rs. 1,382 less and the expenditure Rs. 739 more. There is an increase of Rs. 292 under II*e.*, other minor produce, and a very slight increase under II.*b*, firewood and charcoal, but all other sub-heads show a decrease. The decrease is said to be on account of the opening of forests in the Saugor district which were closed up to the end of 1882, and to apprehensions of famine which caused sales to fall off greatly during June, July, and August.

The increased expenditure is due to slight increases under most of the sub-heads of A. and Rs. 100 increase under B.

108. **Bánda Division.**—The results are as follows :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	2,469	5,276	...	7,745
Expenditure	2,098	968	980	4,046
Surplus	371	4,308	...	3,699
Deficit	...	...	980	...

The charges include a sum of Rs. 700, quota of Direction Division expenditure.

The outstandings due to the Division at the close of the year amounted to Rs. *nil.*

Compared with 1882-83, the receipts were Rs. 965 more and the expenditure Rs. 250 less.

The principal increase in revenue is Rs. 863 under A.I.(*a*.)

The less expenditure is made up by a decrease under A. of Rs. 794 and an increase under B. of Rs. 544.

109. In para. 25 of the Local Government review on the report for 1882-83, a comparison of the estimated profit on timber works under both departmental and private agency was asked for.

In the Garhwál Division the private agency system was commenced in 1880-81 (see para 116 D. of last year's report), and the figures of that Division for the 4 years 1875-76 to 1878-79 under the departmental system, and for the 4 years 1880-81 to 1883-84 under the private agency system, will give a fair comparison of the results under both systems.

Sál timber prepared by departmental agency, and sold from depôts or on indent, during the years 1875-76 to 1878-79 :—

	Cubic feet sold.	Amount realized.	Expenditure on preparation.
		Rs.	Rs.
1875-76	74,820	61,960	33,225
1876-77	38,024	25,976	40,925
1877-78	29,390	28,175	7,180
1878-79	96,066	66,890	6,905

Add difference of stock—

		Value at 12 annas 3 pie per cubic foot.	Expenditure on preparation at 6 annas per cubic foot.
	C. ft.		Rs.
1st April, 1875	69,514		
31st March, 1879	17,520		
	51,994	*51,994	39,808	19,498
Total ...		2,90,294	2,22,309	1,07,733

These figures show that there was a surplus of Rs. 1,14,576 on the four years' transactions, and that Government derived a profit of nearly 6 annas and 4 pie per cubic foot.

Sál timber cut and exported by private agency during the years 1880-81 to 1883-84 :—

	Amount exported.	Revenue realized.	Average receipts per cubic foot.
	Cubic feet.	Rs.	Annas.
1880-81	1,104	688	9·27
1881-82	15,872	10,301	10·36
1882-83	52,411	38,664	11·80
1883-84	56,877	43,286	12·17
Total ...	126,264	92,939	...

Departmental agency system.—Average net profit 6 annas 4 pie per cubic foot.

Private agency system.—Average net profit 11 annas 9 pie per cubic foot, or 5 annas 5 pie in favour of the private agency system.

The expenditure on roads is the same under both systems, and therefore it has been left out of the calculation.

Para. 79 of the annual report for 1881-82 gives such a clear history of the private agency system in the Garhwál Division that I cannot do better than repeat it here. The following is a copy of it.:—

"The experiment, mentioned in para. 81 of last year's report, of selling trees standing instead of sawing them up departmentally and bringing the timber to depôt, was so successful that it was carried out on a much more extensive scale during 1881-82.

"Over 3,000 sál trees were marked in divisions I. and II. of the North Pathi Dún range, and 1,855 of them were felled by exporters (see the following statement) :—

Division.	Compartment.	Number of sál trees felled.	Class and girth of trees.				Hollow trees.
			I. Over 6′ girth.	II. 4½′ to 6′ girth.	III. 3′ to 4½′ girth.	IV. 1½′ to 3′ girth.	
I.	17	1,184	561	439	174	...	10
I.	15	205	106	40	49	6	4
II.	13	208	78	86	34	...	10
II.	14	258	96	126	10	...	26
Total ...	...	1,855	841	691	267	6	50

"These trees were converted by the merchants into logs, kolhus (sugar-mills), karis, sleepers, joras (cart-axles), plough-shafts, sides and ends of beds, and rolling-pins.

"The merchants pay the royalty as they export the timber, the rates varying considerably according to the size and description of the timber.

"In 1880-81 the rates were from 6 annas to Rs. 1-2-0 per cubic foot for sawn timber and from 4 to 12 annas for axed timber.

"For 1881-82 they were increased to from 7½ annas to Rs. 1-3-6 for sawn timber and to from 6½ to 14½ annas for axed timber.

"Up to the close of the year 1881-82, 13,069 cubic feet had been exported and Rs. 8,595 were realized on it, or an average of about 10½ annas per cubic foot. The actual amount of timber exported from these 1,855 trees cannot be given now ; but by the middle of May last, when the Divisonal Officer submitted his annual report, 46,443 cubic feet had been exported, and then a considerable amount still remained in the forests. But even taking the above amount (46,443 cubic feet), we have an average of over 25 cubic feet per tree, which, considering that only 1,532 of the trees were over 4½ feet in girth, the remainder being either under 4½ feet girth or hollow, is an excellent outturn, and it shows that the wood has not been cut to waste.

"Two hundred and eighty-seven sál trees felled and converted by departmental agency in this Division yielded 6,796 cubic feet of timber, or about 23⅔ cubic feet per tree : 2,245 sál trees felled and converted by departmental agency in the Kumaun Division yielded 46,313 cubic feet of timber, or about 20⅝ cubic feet per tree. In these two cases, though, it must be borne in mind that the branches and small timber are still lying in the forests and are not included in the yield.

"The Garhwál Division being rather out of the way, purchasers are not so willing to come to its depôts for timber as to the depôts of the Kumaun Division, nor will they give such high prices. Besides that there was always a difficulty in the Garhwál Division in procuring sufficient carts and cattle to haul the timber from the forests to the depôts. Taking everything into consideration, the system of allowing the trees to be converted and exported by merchants is, I consider, better suited for the Garhwál Division than conducting the timber operations by departmental agency. The outturn per tree during both years of the experiment has been excellent, showing clearly that the wood has not been wasted, and a clear profit of an average all-round rate of 10½

annas per cubic foot (it was about 9¾ annas in 1880-81) is a good price for only the second year's trial of the new system. The rates are not yet quite as high as they might be; they will be raised a little every year until we arrive at the proper market value of the timber, but this must be done very gradually so as not frighten the merchants."

During the year 1883-84, 1,602 sál trees were felled in the Garhwál Division. From these trees 30,344 cubic feet of timber were exported during the year, and it is estimated that 13,958 cubic feet were *lying converted in the forest* at the close of the year. This gives an average yield of 27·65 cubic feet per tree: 143 of the trees were between 3′ and 4½′ girth, 372 between 4½′ and 6′, 960 over 6′, and 127 hollow and unsound.

During the same season 1,438 sál trees were felled and converted by departmental agency in the Kumaun Division. They yielded 19,021 cubic feet of timber brought to depôt, or an average of 13·22 cubic feet per tree. All trees in this forest *fit for logs* had been previously felled, and the refuse of the 1,438 trees will yield a few thousand cubic feet of small timber next year.

But even allowing for this, and taking into consideration the facts stated in the paragraph reproduced above, I think it is fairly well proved that the private agency system is such a decided success, both financially and economically, in the Garhwál Division, that we are fully warranted in adopting it throughout our Bhábar forests. In the Kumaun Division the whole of last season's timber works in Eastern Kumaun were conducted on the private agency system, and as timber works only commenced in those forests in 1881-82, a very fair comparison of the profits of the two systems can be deduced from the two years of Government agency and the one year of private agency.

Sál timber prepared by departmental agency and sold from depôt during the years 1881-82 and 1882-83:—

Brought to depôt		c. ft. 51,877
Sold at depôt 23,285 c. ft. for	Rs. 31,104	
Value of 28,592 c. ft. in the depôt	„ 26,734	
		Rs. 57,838
Cost of preparing and bringing to depot 51,877 c. ft.		„ 29,833
Surplus ...		„ 28,005

or an average profit of 8 annas and 8 pie per cubic foot.

[*N.B.*—A great deal of the timber in depôt is 2nd and 3rd class.]

Sál timber cut and exported by private agency during the year 1883-84:—

Exported by private agency	c. ft. 35,457
Revenue received for the above	Rs. 26,164
Departmental expenditure	„ 586
Surplus ...	„ 25,578

or an average profit of 11 annas and 6 pie per cubic foot.

Thus we see that in the *eastern* forests of the Kumaun Division there is a balance of 2 annas and 10 pie per cubic foot in favour of the private agency system.

In the next year's report I hope to be able to give the same kind of comparisons for Western Kumaun and the Ganges Division.

CHAPTER VI.

GENERAL REMARKS.

110. The financial results of the year were exceptionally good, far the best of any year since these forests became the Central Circle. To a great extent this was, no doubt, due to the favourable kharíf harvest of 1883 and to the unusually dry winter, which rendered carriage and labour available in unlimited quantities and allowed

the men to work incessantly, instead of being delayed for short periods now and again by rain and broken roads as they usually are.

But I believe that the main cause was the extension of the private agency system of timber works. The enormous increase over last year in receipts under II.a. (Rs. 85,500) in the Kumaun, Garhwál, and Ganges Divisions certainly warrants this opinion, and the low percentage of expenditure to receipts (49·76 for 1883-84 against an average of 62·55 for the four previous years) is undoubtedly due to the extension of that system.

111. The demand for khair timber was again very slack, and there is no doubt that this is due to the extensive use of the capital iron sugar mills which are now to be seen in work at most of the large sugar-producing centres.

112. During February and March the Inspector-General of Forests made a tour of inspection through the Kumaun, Garhwál, and Ganges Divisions, and suggested an improvement in the subordinate forest establishment which I trust will be carried into effect before long.

113. He noticed that in the Ganges, Garhwál, and western half of the Kumaun Divisions the supply of bamboos was becoming rather a serious question, and that the clumps in the more accessible parts were considerably overcut. Orders have been issued to hold all officers in charge of ranges and beats responsible that not less than four uninjured growing stems shall be left in every clump, and as the cutters are fairly amenable to orders, I think this will have the desired effect. An alteration in the royalty rates, which will come into force next season, will also, it is thought, tend to lessen the desire to overcut the clumps without decreasing the revenue.

The revenue from bamboos in the Kumaun, Garhwál, and Ganges Divisions for the last four years is shown in the following table :—

	1880-81.	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.	Rs.
Revenue realized	64,245	74,969	68,911	79,358

These figures show that the bamboo yield has not varied very much during the last four years, and that the best of the four was 1883-84. But I must confess that I saw more cases of overcutting, and more destruction by wild elephants, last winter than I have ever seen before ; and this leads me to infer that the demand, combined with the amount consumed and destroyed by elephants exceeds the supply in some places, and equals it in all others except in Eastern Kumaun, where there are extensive bamboo forests which have been very lightly worked hitherto.

The orders which have been issued will, I feel sure, put a stop to the overcutting, but the destruction by wild elephants is quite beyond the control of forest officers so long as these animals are under the protection of Government. The Inspector-General made some strong remarks about them in his memo. of the 15th March last, and I have several times reported the enormous damage they do in our forests and the danger and nuisance they are to every one who has to live in the forests. Our officers and workmen are constantly being chased and stopped by them, and I heard of one man being trampled to death last spring and another (a forester) very severely hurt when bolting from one which was in full chase after him.

The amount of damage they do in our forests by eating, breaking, and uprooting bamboos and knocking down sál and other saplings is inconceivable to any one who has not seen it ; they are a great nuisance to every one in, and on the borders of, the forests, and Government derives nothing but *loss* from them, and loss to a very considerable amount. Unmolested as they now are and have been for several years past, they breed freely and their numbers have increased enormously ; and if this goes on for a few years more, we may expect a large decrease in our revenue from bamboos,

notwithstanding our efforts to stop overcutting, and an increased export of dry sál poles which will not improve the forests of the future.

114. There were no disturbances or disagreements between Forest officers, either superior or subordinates, and district officers or villagers.

115. Since writing sub-head (3)—Forest fires—of Chapter III., a case has been reported by the forest ranger of the Garhwál Division of *another* fire having been lighted in the forest by *lightning*. It happened near the top of the hills in the North Patli Dún range on the 21st of June. In this instance the tree which was struck has been found, and the remnant of it has been cut down and stored in the Dhikula rest-house. The grass at the foot of the tree caught fire, but fortunately rain fell almost immediately afterwards and put out the fire before it did any damage. I hope to see this tree and visit the spot it came from next year.

116. All the Divisional Officers worked well during the year under report, and they report favourably of their subordinates.

Mr. Braidwood was in charge of Conservator's office throughout the year, except during the three months he was on privilege leave, and Mr. Sheils, the Head Clerk, assisted by the subordinate clerks, kept the office in excellent order as usual.

OFFICE OF CONSERVATOR OF FORESTS,
CENTRAL CIRCLE, N.-W. P. AND OUDH,
Naini Tal, the 22nd July, 1884.

G. GREIG,
Conservator of Forests,
Central Circle, N.-W. P. and Oudh.

ANNUAL STATEMENTS.

ANNUAL FORM No. 49.—(PRESCRIBED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Reserved Forests, 1883-84.

Division or range.	Civil district or territory.	Name of forest.	*Area on 1st April*, 1883.		*Added during the year.*	*Excluded or transferred to other heads.*	*Area on 31st March*, 1884.		No. and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Kumaun Division...	Kumaun district ...	Block No. I.	80,467	126	...	...	80,467	126	No additions or transfers during the year.	The areas are subject to correction on the completion of the survey by the Forest Survey Department.
		Ditto II.	10,937	17	...	...	10,937	17		
		Ditto III.	35,200	55	...	...	35,200	55		
		Ditto V.	65,606	103	..	...	65,606	103		
		Ditto VII.	8,960	14	...	...	8,960	14		
		Ditto VIII.	147,520	230	...	...	147,520	230		
		Ditto IX.	43,520	68	...	...	43,520	68		
		Ditto X.	4,320	7	...	...	4,320	7		
		Ditto XI.	4,640	7	...	...	4,640	7		
		Ditto XII.	5,440	8	...	...	5,440	8		
			320	1	...	...	320	1		
		Total ...	406,930	636	...	...	406,930	636		
Ránikhet ditto ...	Kumaun district ...	Block No. XI., Ránikhet ...	4,480	7	...	...	4,480	7	Ditto ...	The area is subject to correction on the receipt of area statements from the Forest Survey Department.
Garhwál ditto ...	Garhwál district ...	Block No. I., Patli Dun ...	152,000	238	...	...	152,000	238	Ditto ...	Ditto.
		Ditto II., Kotri Dun ...	115,520	180	...	...	115,520	180		
	Bijnor ,, ...	Ditto VI., Kartia ...	800	1	...	...	800	1		
		Rehar	15,719	25	...	...	16,719	25		
		Total ...	284,039	444	...	...	284,039	444		
Ganges ditto ...	Native Garhwál ...	Bhagirathi forest ...	A portion of the forest leased from His Highness the Rajá of Tehri.						Ditto ...	Ditto.
	Garhwál district ...	Block No. III., Saneh ...	10,880	17	...	...	10,880	17		
		Ditto IV., Laldhang ...	23,360	37	...	...	23,360	37		
		Ditto V., Khara ...	56,320	88	...	...	56,320	88		
	Bijnor district ...	Chandi	39,999	62	...	...	39,999	62		
		Total ...	130,559	204	...	...	130,559	204		

Jhansi ditto ...	Jhánsi district ...	Jhánsi ...	...	...	10,130	18	...	12	10,118	16		The areas are subject to correction. The 43 acres excluded have been taken up for the Jhánsi Railway.
		Mau ...	...	...	6,084	9	...	31	6,053	9		
		Garotha ...	...	...	5,127	8	...	...	5,127	8		
		Moth ...	...	...	2,272	4	...	...	2,272	4		
		Total		...	23,613	37	...	43	23,570	37		
Lalitpur ditto ...	Lalitpur ditto ...	Lalitpur...	...	...	255	...	...	...	255	...	No additions or transfers during the year.	The areas are subject to correction.
		Bansi ...	...	...	4,733	7	...	...	4,733	7		
		Talbehat...	...	...	11,653	18	...	...	11,653	18		
		Balabehat	...	...	30,186	47	...	...	30,186	47		
		Bánpur ...	...	...	4,745	7	...	...	4,745	7		
		Mahroni ...	...	...	1,283	2	...	...	1,283	2		
		Maraura ...	...	...	40,290	63	...	...	40,290	63		
		Total		...	93,145	146	...	...	93,145	146		
		GRAND TOTAL		...	942,766	1,474	...	43	9,42,723	1,474		

Area of Protected Forests, 1883-84.

Naini Tal Division...	Kumaun district...	Block No. I.	...	...	* 22,744	36	...	...	22,744	36	No additions or transfers.	* Includes 3,299 acres of village lands.
		Ditto II.	...	...	193		...	...	193			
		Total		...	22,937	36	...	...	22,937	36		
Bánikhet ditto ...	Kumaun ditto ...	Block No. I., Machor		...	211	...	...	...	211	...	Ditto ...	The area is subject to correction on the receipt of area statements from the Forest Survey Department.
		Ditto II., Bhtronj		...	5,760	9	...	...	5,769	9		
		Ditto III., Tetalikhet or Seoni.			4,480	7	...	...	4,480	7		
		Ditto IV., Siun		...	640	1	...	...	640	1		
		Ditto V., Bellekh		...	640	1	...	...	640	1		
		Ditto VI., Kathallekh		...	1,920	3	—	...	1,920	3		
		Ditto VII., Ganiadeoli		...	1,280	2	...	...	1,280	2		
		Ditto VIII., Karchuli		...	203	...	...	...	203	...		
		Ditto IX., Chilianao		...	640	1	...	...	640	1		
		Ditto X., Chaubattia		...	1,280	2	...	...	1,280	2		
		Ditto XII., Padholi		...	640	1	...	...	640	1		
		Ditto XIII., Dwárson		...	1,920	3	...	...	1,920	3		
		Ditto XIV., Airadeo		...	16,640	26	...	...	16,640	26		
		Ditto XV., Seahi Devi		...	1,920	3	...	...	1,920	3		
		Total		...	38,174	59	...	...	38,174	59		
Lalitpur ditto ...	Lalitpur ditto ...	Lalitpur		...	65	...	...	...	65	...	Ditto ..	The area is subject to correction.
		Talbehat		...	2,363	4	...	...	2,363	4		
		Total		...	2,428	4	...	...	2,428	4		
		GRAND TOTAL		...	63,539	99	...	...	63,539	99		

NAINI TAL:
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 49.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Bánda Forest, 1883-84.

Division or range.	Civil district or territory.	Name of forest	*Area on 1st April*, 1883.		*Added during the year.*	*Excluded or transfered to other heads*	*Area on 31st March*, 1884.		No. and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		I.—GOVERNMENT VILLAGES.								
Bánda ...	Bánda district...	1. Ambha	2,242 77	...	...	...	2,242 77	...		
		2. Amchurnarua	4,216 66	...	...	...	4,216 66	...		
		3. Uldan	714 92	...	...	...	714·02	...		
		4. Uncha Dih	413 88	...	...	...	413 88	...		
		5 Parasiu	3,623 30	...	...	...	3,623·30	...		
		6. Jaro	1,139 94	...	...	...	1,139·94	...		
		7 Chauri	4,036 70	...	...	...	4,036 70	...		
		8. Chulhi Mahál Sheoprasad ...	1,627 66	...	...	...	1,627 66	...		
		9. Deori	4,273 31	...	...	...	4,273 31	...		
		10. Donda	5,416 14	...	...	...	5,416 14	...		
		11. Bajoban	4618 80	...	...	...	4,618 80	...		
		12 Rukma khurd	132 62	...	...	...	132 62	...		
		13. *Sakrachan	644 80	...	...	...	644 80	...		
		14. Karka Pandri	730 93	...	...	...	730 93	...		
		15. Matdar	6,729 10	...	...	...	6,729 10	...		
		16. Mau	385·53	...	...	...	385 53	...		
		17. Kuluba	6,182 0	...	...	...	6,182·0	...		
		18. Rampur	2,697 84	...	...	...	2,697 84	...		
		19. Gidraba	221 66	...	...	...	221 66	...		
		20. Chiriya Buzurg ...	1,237·83	...	...	...	1,237 83	...		
		21. Mamaniya	2,250·24	...	...	...	2,250 24	...		
		Total ...	53,535·73	...	...	...	53,535·73	...		
		II.—VILLAGES HELD UNDER 45-55 ARRANGEMENT.								
		22. Bhera	777·96	...	...	...	777 96	...		
		23. Tikariya	2,892·39	...	...	...	2,892·39	...		
		Sec No. 8 { Chulhi Mahál Balkishan,	26 25	...	...	...	26·25	...		
		Sec No. 8 { Chulhi Mahál Mukhramgir,	13·0	...	...	...	13·0	...		
		24. Cheolaha	1,502·38	...	...	...	1,502 38	...		
		25. Dadri	4,697 0	...	...	...	4697 0	...		
		26. Rukma Buzurg	1,978 21	...	...	...	1,978 21	...		
		27. Karashan	728 43	...	...	...	728 43	...		
		Chidghatti (included in Karashan,)	69 43	...	...	...	69 43	...		
		28. Kalyanpur	2,670 66	...	...	...	2,670·66	.		
		29. Gur Sarai	908 43	...	...	...	908 43	...		
		30. Maraiyan	1,885·68	...	...	...	1,885·68	...		
		31. Mohuli	948·76	...	...	...	948 76	...		
		32. Nihi	2,109 61	...	...	...	2,109·61	...		
			21,208 19	...	...	..	21,208·19	...		
		Total ...	74,743·92	...	...	.	74,743 92	...		
		Add area outside the forest line...	716 0	...	...	.	716·0	...		
		GRAND TOTAL ...	75,459 92	...	...	...	75,459 92	...		

NAINI TAL
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P., and Oudh

ANNUAL FORM No. 50.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Plantations, 1883-84.

Division.	Name of Plantation.	On 1st April, 1883. Area.	On 1st April, 1883. Cost.	Added during 1883-84. Area.	Added during 1883-84. Cost.	On 31st March, 1884. Total area.	On 31st March, 1884. Total Cost.	Remarks.
		Acres.	Rupees.	Acres.	Rupees.	Acres.	Rupees.	
Kumaun ...	Various plantations imperfectly stocked, incomplete or success uncertain.	...	2,458	...	(a) 322	...	2,780	Principally sál. (a) Expenditure under A.VIII.d.
Naini Tal ...	Ayarpatta ...	5	16	...	...	5	16	Oak (q. dilatata).
	Jabar ...	147	870	...	1	147	871	Deodar.
	China ...	77	511	...	128	77	639	Deodar, walnut, horse-chestnut, and oaks.
	Kahla ...	35	313	...	...	35	313	Walnut and deodar.
	Various other plantations imperfectly stocked, incomplete, or success uncertain.	...	2,823	...	500	...	3,323	Ash, walnut, horse-chestnut, and oaks.
	Total ...	264	3,533	...	(b) 629	264	4,162	(b) Expenditure under A.VIII.d.
Ránikhet ...	Jakhdeo (Upper) ...							Walnut, horse-chestnut, gum, and acacia.
	Ditto (Lower) ...							Gums, acacia, walnut, horse-chestnut, sweet chestnut, and deodar.
	Garkhet ...	367	13,056	...	8	367	13,064	Deodar, oak, walnut, and horse-chestnut.
	Jainoli ...							Walnut, horse-chestnut, deodar, oak, and acacia.
	Darimkhet ...							Walnut, horse-chestnut, and deodar.
	Ghingarókhál ...							Walnut, horse-chestnut, and deodar.
	Various other plantations imperfectly stocked, incomplete, or success uncertain.	...	4,125	...	1,936	...	6,061	Deodar, walnut, horse-chestnut, ash, acacia, pinus excelsa, and alder.
	Total ...	367	17,181	...	(c) 1,944	367	19,125	(c) Expenditure under A.VIII.d.
Garhwál ...	Boxar ...	...	560	...	...	...	560	A failure, was sown with sál and again with acacia catechu.
	Prempuri and Saneh ...	...	480	1½	198	1½	678	Mango groves on camping grounds.
	Total ...	...	1,040	1½	(d) 198	1½	1,238	(d) Expenditure under A.VIII.d.
Ganges ...	Haldúkhata ...	...	190	...	41	...	231	
	Chila ...	...	93	...	40	...	133	Mango groves on camping grounds.
	Papidanda ...	...	...	...	30	...	30	
	Total ...	...	283	...	(e) 111	...	394	(e) Expenditure under A.VIII.d.
Jhánsi ...	Sukhwan and Dukhwan ...	27	544	3	...	30	...	
	Babinah ...	4	32	1	...	5	...	
	Magarpur ...	10	287	3	...	13	...	
	Ganúpura ...	25	552	3	...	28	...	Teak, sissu, mahua and babul.
	Kheri ...	21	12	...	...	21	...	
	Bhasneo ...	10	276	3	...	13	...	
	Pargana Moth ...	461	86	23		484		
	Rora ...	2	1	...		2		
	Bagora ...	1	2	1		2		
	Thakurpura ...	...	...	1	550	1	2,342	Babul.
	Gudha ...	...	...	1		1		
	Emlutha ...	...	...	1		1		
	Motikatra ...	...	...	1		1		
	Total ...	561	1,792	41	(f) 550	602	2,342	(f) Expenditure under A.VIII.d.
Lalitpur ...	Kuchnowd ...	2	50	8	(g) 100	10	150	Teak. (g) Ditto ditto.
Bánda ...	...	...	3	...	...	...	3	
	Total ...	1,194	26,340	50	3,854	1,244	30,194	

NAINI TAL:
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No 51.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH

Area of forest tracts protected from fire during the dry season of 1884
(to accompany report for 1883-84.)

Division.	Forest tracts	Up to 30th June, 1883. Area actually protected.	Up to 30th June, 1883. Total cost.	During dry season of 1884. Area attempted to be protected.	Failures.	Actually protected.	Amount expended.	Total cost up to 30th June, 1884.	Year in which protection commenced	Remarks.
		Acres.	Rs	Acres	Acres	Acres.	Rs	Rs		
Naini Tal.	Block I. ...	18,800	3,484	19,187	74	18,413	544	4,028	1876	Vide paras 32 to 42 of the Annual Report.
	Ditto II. ...	193		193	...	193				
	Total ...	18,993	3,484	19,380	774	18 606	544	4,028		
Bankhet.	Ránikhet reserved forest	4,790	1,000	4,800	...	4,800	79	1,079	1874	
	Padholi protected forest.	640	98	640	119	521	56	154	1882	
	Chaubattia ditto ...	1,280	149	1,280	13	1,267	69	218	1882	
	Chilianao ditto ...	...	...	640	...	640	20	20	1884	
	Gauladeoli ditto ...	1,273	283	1,280	.	1,280	62	345	1878	
	Kathalekh ditto ...	1,700	343	1,700	..	1,700	60	403	1878	
	Seoni ditto ...	2,509	317	2,560	..	2,560	83	400	1880	
	Total ...	12,192	2,190	12,900	132	12,768	429	2,619	.	
Kumaun.	Chilkia Mohan ...	46,240	26,389	46,240		46,240	3,990	30,379	1873	
	Kotah ...	23,219	9,220	23,298	42	23,256	1,664	10,884	1876	
	Garibulchand ...	7,112	5,130	7,112	...	7,112	651	5,781	1876	
	Horai .	...	7,361	2,565	.	2,565	272	8,582	1876	
	Sadulimat Jaunia Sal	8,320		8,320	624	7,696	949			
	Nindhoro ...	8,653	456	10,493	2,812	7,681	602	1,058	1882	
	Lakhman Mandi ...	2,000	112	2,000	...	2,000	325	437	1883	
	Chandani ..	...	...	320	.	320		...	1876	By Commissioner.
	Total ..	95,544	48,658	1,00,348	3,4 8	96,870	8,453	57,121	...	
Garhwál	South Pathi Dún range	45,698	21,915	45,631	...	45,631	2,694	24,609	1873	Vide paras 32 to 42 of the Annual Report
	North ditto	50,743	9,228	50,763	4,246	46,537	3.142	12,370	1877	
	Sisham Khata block,	2,020	1,198	2,020	200	1,820	459	1,657	1876	
	Kohar forest ...	12,478	3,962	12,258	...	12,258	1,552	5,514	1880	
	Total ...	1,11,139	36,303	1,10,622	4,446	1,06,246	7,847	44,150	.	
Ganges	Tangnore leased Deodar forests	8,872	90	8,872	...	8,872	58	148	1876	
	Papidanda ...	521	2,733	521	521	..	560	3,293	1875	
	Hazara ...	2,000		2,000	. .	2,000			1881	
	Jogichour ..	1,500		1,500	707	793				
	Kauria ...	3,000		3,000	...	3,000				
	Andhormajhera ...	1,456		1,500	...	1,500				
	Sukrao ...	1,374		1,500	...	1,500			1882	
	Total ...	18,723	2,823	18,893	1,228	17,665	618	3,441	...	
Jhánsi.	Sukhwan .	384	110	839	...	839	30	140	1874	
	Dukhwan .	480	1,015	2,114	...	2,114	70	1,085		
	Magarpur ..	...	16	...	..	.	.	16	1881	
	Bhasneo ...	..	14	...	...	...		14		
	Total ...	864	1,155	2,953	...	2,953	100	1,255	...	
Lalitpur	Deogarh ...	998	633	998	...	998	100	733	1875	
	Garauli ...	751		751	...	751				
	Total ...	1,749	633	1,749	...	1,749	100	733	..	
	GRAND TOTAL ...	259,204	95,256	266,915	10,058	256,857	18,091	1,13,347	...	

		Rs.
Charged in previous years	...	95,256
Ditto 1883-84	...	*10,584
Ditto 1884-85		7,507
Total	...	1,13,347

*Rs 6,172 of the total expenditure under A.VIII$_6$. for 1883-84 are included in the amount "charged in previous years."

NAINI TAL
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 52.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Prosecutions for breaches of Forest Rules during 1883-84.

Forest Division and Civil District	Cases pending from 1882-83	New cases of the year.					Total cases	Disposed of during the year						Cases pending at close of year
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce	Grazing without permission or in tracts in which grazing is prohibited	Other offences.	Total new cases of the year		Convictions		Acquittals		Total.		
								Cases	Persons.	Cases	Persons	Cases	Persons.	
Naini Tal Division.														
Kumaun district	...	2	23	...	.	25	25	23	42	2	6	25	48	...
Ránikhet Division.														
Kumaun district	.	...	17	4	3	24	24	23	53	1	22	24	75	...
Kumaun Division.														
Kumaun district ...	.	.	1	..	.	1	1	1	4	...	..	1	4	...
Garhwál Division.														
Garhwal district	1	1	...	...	1	2	3	2	3	1	2	3	5	...
Ganges Division														
Garhwál district ...	2	...	2	1	By His Highness the Rája of Tehri ...	3	5	3	4	...	.	3	4	2
	1	...	.	.	By the District Officer, Garhwál. ..	1	1	...	...	1	2	1	2	..
	.		1	...	By the District Officer, Bijnor .	1	1	...	...	...	..	...	...	1
Total ..	3		3	1	...	4	7	3	4	1	2	4	6	3
Jhánsi Division														
Jhansi district	...	.		...	9	9	9	9	12	...	...	9	12	...
Lalitpur Division.														
Lalitpur district	...	..	16	1	2	19	19	15	33	4	17	19	50	...
Total ..	4	3	60	6	15	84	88	76	151	9	49	85	200	3

NAINI TAL
The 2nd July, 1884

G GREIG,
Conservator of Forests, Central Circle, N W P. and Oudh.

ANNUAL FORM No. 53.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of Revenue of the different Divisions, 1883-84.

Budget Heads Receipts.	Direction.	Naini Tal Division.	Kumaun Division.	Ránikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency :—										
(a) Timber	...	11,562 7 10	65,114 13 6	...	5,099 3 9	9,035 5 5	13 15 1	808 8 8	1,716 9 10	93,351 0 1
(b) Firewood and charcoal	...	13,727 1 1	...	25,054 7 11	...	...	357 2 10	...	...	39,138 11 10
(c) Bamboos	...	...	...	...	...	...	92 6 6	3,661 15 1	248 10 10	4,003 0 5
(d) Sandalwood	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce ...	...	500 0 0	...	...	...	...	430 2 7	...	503 7 0	1,433 9 7
II.—Timber and other produce removed from the forests by consumers or purchasers :—										
(a) Timber	...	522 0 0	1,26,871 5 0	1,366 15 0	90,773 4 2	22,113 11 11	8 14 0	938 5 3	184 7 6	2,42,778 14 10
(b) Firewood and charcoal	...	1,693 15 0	5,063 4 1	172 8 0	1,438 6 6	1,991 2 8	1,816 5 11	236 8 0	230 8 0	12,642 10 2
(c) Bamboos	...	19 10 0	15,244 4 1	...	27,252 4 6	36,861 0 11	4 0 4	785 13 3	124 12 0	80,291 13 1
(d) Grazing and fodder grass	...	82 0 6	8,404 14 6	572 0 0	2,974 10 4	2,352 15 0	2,576 1 0	2,873 0 4	540 3 3	20,375 12 11
(e) Other minor produce	...	219 12 9	16,049 0 10	703 12 6	5,641 7 0	3,137 4 6	273 9 2	1,654 3 5	2,713 10 6	30,412 12 8
III.—Confiscated drift and waif wood ...	...	...	159 7 9	7 15 4	524 15 3	63 11 10	...	0 4 0	...	756 6 2
IV.—Revenue from forests not managed by Government :—										
(a) Duty on foreign timber and other forest produce.	...	...	...	...	...	...	...	...	65 8 0	65 8 0
(b) Revenue from shared and private forests,	...	...	...	...	...	...	...	...	...	...
V.—Miscellaneous :—										
(a) Fines and forfeitures	...	256 4 9	1,099 15 6	141 1 0	60 11 0	622 3 0	...	...	41 7 0	2,221 10 3
(b) Refunds	...	...	...	...	...	5 0 0	...	...	...	5 0 0
(c) Other sources	2 0 0	42 0 0	171 6 7	130 12 5	1,841 1 3	1,140 2 3	2,100 4 2	...	1,375 9 9	6,803 4 5
Total, Receipts ...	2 0 0	28,625 3 11	2,38,178 7 10	28,149 8 2	1,35,625 15 9	77,322 9 6	7,672 13 7	10,958 10 0	7,744 13 8	5,34,280 2 5

CALCUTTA:
The 29th May, 1884.

C. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General, Forests.

ANNUAL FORM No. 53.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of Expenditure of the different Divisions, 1883-84.

Budget heads.	Direction.	Naini Tal Division.	Kumaun Division.	Ránikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency :—										
(a) Timber	...	5,394 8 4	13 800 11 9	...	...	6,918 9 6	6 1 3	196 3 11	554 11 10	26,870 14 7
(b) Firewood and charcoal	...	8,147 7 10	...	14,484 13 8	...	...	416 1 9	...	...	23,048 7 3
(c) Bamboos	...	...	...	...	...	...	25 7 7	948 15 11	136 13 11	1,109 5 5
(d) Sandal-wood	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce... ...	...	9 12 9	...	...	...	...	228 4 5	...	14 14 0	252 15 2
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	9,039 2 3	...	6,282 5 1	4,142 5 6	...	...	...	19,463 12 10
III.—Confiscated drift and waif wood ...	...	...	...	...	...	4 13 0	...	...	...	4 13 0
IV.—Revenue from forests not managed by Government—										
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government ...	...	...	...	...	...	4,000 0 0	...	...	424 2 3	4,424 2 3
VI.—Live Stock, Stores, Tools and Plant:—										
(a)—Purchase of cattle	...	...	2,200 0 0	...	...	...	...	155 7 8	...	2,355 7 8
(b)—Feed and keep of cattle	...	...	1,686 0 1	...	1,131 9 0	1,041 14 2	371 6 6	1,394 0 2	...	5,524 13 11
(c)—Stores, tools and plant	16 0 0	392 7 6	499 11 10	222 9 0	1,271 0 8	677 2 0	46 11 10	250 0 0	...	3,382 10 2
VII.—Communications and Buildings:—										
(a)—Roads and bridges	...	482 4 3	7,723 3 4	190 8 11	19,313 9 6	2,244 2 8	35 0 0	...	57 9 3	30,046 5 11
(b)—Buildings	21 3 0	559 8 1	3,784 10 1	158 10 3	2,124 7 7	3,173 2 7	113 6 9	400 0 0	16 12 8	10,351 13 0
(c)—Other Works	...	...	...	...	184 8 0	...	...	...	...	184 8 0
VIII.—Demarcation improvement and extension of forests :—										
(a)—Demarcation	...	72 10 0	166 3 7	...	230 9 8	45 2 10	19 0 0	...	...	533 10 1
(b)—Compensation for land and rights ...	...	...	...	...	...	...	...	...	...	...
(c)—Surveys and working plans ...	...	...	776 8 3	...	...	70 2 2	...	...	...	846 10 5
(d)—Plantations	...	629 4 5	824 14 8	1,943 8 7	198 0 6	111 2 6	550 2 3	100 0 0	...	3,854 0 11
(e)—Protection from fire	...	613 5 3	8,359 8 10	541 1 9	7,680 1 1	865 5 7	100 0 0	100 0 0	...	18,259 7 6
(f)—Other works	...	...	29 12 4	344 1 7	90 0 0	117 5 0	9 15 6	...	11 2 6	602 4 11
IX.—Miscellaneous :—										
(a)—Refunds	...	24 0 0	716 5 0	...	...	...	30 0 0	15 8 0	...	785 13 0
(b)—Law charges	...	...	...	...	...	...	...	...	...	...
(c)—Other charges	...	27 9 6	87 14 6	116 11 2	179 9 0	176 1 6	35 4 10	22 8 0	0 10 0	646 4 6
Total, A.—Conservancy and Works ...	37 3 0	16,362 13 11	49,191 11 6	18,009 0 11	38,685 11 5	23,587 5 0	1,986 14 8	3,480 11 8	1,216 12 5	1,52,548 4 6

CALCUTTA:
The 29th May, 1884.

C. J. VAN SOMEREN, MAJOR,
Assistant-Comptroller-General (Forests.)

ANNUAL FORM No. 53.—(PRESCRIBED).

FOREST DEPARTMENT, CENTRAL CIRCLE.

Summary of expenditure of the different Divisions, 1883-84.

Budget heads.	Direction.	Naini Tal Division.	Kumaun Division.	Rénikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
B.—ESTABLISHMENTS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Brought forward, Total A., Conservancy and Works.	37 3 0	16,352 13 11	49,191 11 6	18,009 0 11	38,685 11 5	23,587 5 0	1,986 14 8	3,480 11 8	1,216 12 5	1 52,548 4 6
I.—Salaries—										
(a) Conservators	19,050 8 5	...	...	...	...	...	...	...	...	19,050 8 5
(b) Superior Officers	...	8,263 5 4	10,013 7 1	4,385 0 7	8,927 6 8	6,582 15 3	...	...	...	38,172 2 11
(c) Subordinate Forest and Depôt Establishment.	...	1,062 6 2	9,121 1 9	1,905 13 11	6,841 13 0	3,376 14 7	1,102 0 0	1,554 0 0	1,252 8 3	26,214 9 8
(d) Office Establishment	3,752 14 11	240 0 0	2,014 13 5	540 0 0	1,656 0 0	1,416 0 0	60 0 0	204 0 0	779 3 7	10,662 15 11
(e) Deputation and Special Allowances ...	...	...	3,000 0 0	1,800 0 0	...	...	...	...	...	4,800 0 0
II.—Travelling Allowances.										
(a) Conservators	1,626 13 0	...	...	...	...	...	...	...	...	1,626 13 0
(b) Superior Officers	...	518 0 0	1,470 2 0	589 5 6	1142 4 0	1,476 0 0	...	...	...	5,195 11 6
(c) Subordinate Forest and Depôt Establishment.	...	47 8 5	598 0 2	...	407 5 4	166 5 4	133 8 0	182 14 5	...	1,535 9 8
(d) Office Establishments	...	4 0 0	507 8 0	80 14 9	423 5 10	580 13 10	...	...	54 8 0	1,651 2 5
III.—Contingencies.—										
(a) Stationery	1 10 0	44 0 0	84 4 9	15 9 0	11 13 6	99 6 0	12 0 0	23 13 0	12 0 0	304 8 3
(b) Carriage of Tents and Records ...	385 4 0	114 6 0	271 6 1	77 9 5	359 12 11	412 12 9	...	...	...	1,021 3 2
(c) Rents, Rates and Taxes	24 0 0	60 0 0	23 0 0	...	28 0 0	32 0 0	12 0 0	...	...	174 0 0
(d) Pay of Police Guards	300 0 0	...	...	...	...	...	...	...	...	300 0 0
(e) Official Postage	153 13 6	12 13 6	101 10 6	32 15 0	98 12 0	77 0 0	7 8 6	66 1 6	...	550 10 6
(f) Sundries	204 8 2	337 7 9	380 2 9	22 15 0	284 11 4	216 0 0	5 2 0	0 6 0	32 13 7	1,484 2 7
Total, B.—Establishments ...	25,499 8 0	10,703 15 2	27,585 8 6	9,450 3 2	20,176 4 7	14,436 3 9	1,332 2 6	2,031 2 11	2,129 1 5	1,13,844 2 0
GRAND TOTAL OF EXPENDITURE ...	25,536 11 0	27,056 13 1	76,777 4 0	27,459 4 1	58,862 0 0	38,023 8 9	3,319 1 2	5,511 14 7	3,345 13 10	2,65,892 6 6

CALCUTTA:
The 29th May, 1884.

C. J. VAN OOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 54—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

DR. *Account Current for the year* 1883-84. CR.

Heads of account.	Rs. a. p.	Rs. a. p.
To cash balance on 1st April, 1883	...	33,472 8 6
Revenue as per annual summary (Form No. 53)	...	5,34,280 2 5
Service funds.		
Uncovenanted Service Family Pension Fund, Bengal ...	1,212 12 0	
Military Fund ditto ditto ...	103 15 2	
Military Orphan Fund ditto ditto ...	86 10 0	1,403 5 2
Deposits	...	250 0 0
Forest Cash Remittances (Local.)		
Forest cheques drawn	2,70,393 5 10	
Inter divisional transfers	2,693 0 6	2,73,086 6 4
Advances recoverable	...	61,373 4 6
Account current (other Governments.)		
Government of India	754 3 0	
Government of Bombay	600 0 0	1,354 3 0
Inter Departmental transfer.		
Public Works Department (other Branches)	680 1 0	
Civil Department (Mathematical Instrument Department) ...	111 6 0	791 7 0
Total ...	...	9,06,011 4 11

Heads of account.	Rs. a. p.	Rs. a. p.
By expenditure as per annual summary (Form No. 53) ...	...	2,65,392 6 6
Deposits	...	250 0 0
Forest cash remittances (Local.)		
Remittances to Treasuries	4,90,816 8 6	
Inter divisional transfers	20,304 1 0	5,11,120 9 6
Advances recoverable	...	58,468 11 3
Account current (other Governments.)		
Government of India	15 7 6	
Government of Panjáb	1,000 0 0	
Government of Central Provinces	884 10 3	1,900 1 9
Inter Departmental transfers.		
Public Works Department (other Branches)	7,874 3 11	
Military Department, Bengal	34,708 13 0	
Telegraph Department	14 0 0	42,597 0 11
Cash balance on 31st March, 1884	...	25,782 7 0
Total	...	9,06,011 4 11

CALCUTTA:
The 29th May, 1884.

C. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 55.—(PRESCRIBED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outstandings and Liabilities on account of Contractors and Disbursers for 1883-84.

Division.	Department Debtor.			Department Creditor.			Balance Due.		Remarks.
	At commencement of year	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year	To Department (Outstandings).	By Department (Liabilities).	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs a. p.	Rs a. p.	
Direction	...	595 7 0	595 7 0	70 0 0	530 0 0	600 0 0	4 9 0	...	
Naini Tal Division	...	5,267 0 7	5,267 0 7	492 4 1	5,259 15 8	5,752 3 9	485 3 2	...	
Kumaun "	...	11 681 11 0	11,681 11 0	3,215 0 0	9,250 0 0	12,465 0 0	783 5 0	...	
Ránikhet "	...	8,674 11 3	8,674 11 3	500 0 0	8,674 11 3	9,174 11 3	500 0 0	...	
Garhwál "	...	15,954 3 6	15,954 3 6	3,880 0 0	15,484 10 4	19,364 10 4	3,410 6 10	...	
Ganges "	...	15,366 11 6	15,366 11 6	1,029 9 5	15,296 5 11	16,,325 15 4	959 3 10	...	
Jhánsi "	...	1,300 6 3	1,300 6 3	200 0 0	1,330 4 1	1,530 4 1	229 13 10	...	
Lalitpur "	..	1,293 0 3	1,293 0 3	...	1,402 10 10	1,402 10 10	109 10 7	..	
Bánda "	...	1,240 1 2	1,240 1 2	...	1,240 1 2	1,240 1 2	...	...	
Total ...	...	61,373 4 6	61,373 4 6	9,386 13 6	58,468 11 3	67,855 8 9	6,482 4 3	...	

CALCUTTA
The 29th May, 1884.

C. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 56.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue received and Outstandings on account of Revenue during 1883-84.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a p.	Rs. a. p.	
Direction ...	Timber sales, grazing dues, and minor produce ...	...	2 0 0	2 0 0	2 0 0	...	
Naini Tal ...	Ditto ditto ...	...	28,625 3 11	28,625 3 11	28,625 3 11	...	
Kumaun ...	Ditto ditto ...	—907 9 0	2,38,178 7 10	2,37,270 14 10	2,38,178 7 10	—907 9 0	Rs. 907-9-0, received in advance in the last year.
Ránikhet ...	Ditto ditto ...	...	28,149 8 2	28,149 8 2	28,149 8 2	...	
Garhwál ...	Ditto ditto ...	...	1,35,625 15 9	1,35,625 15 9	1,35,625 15 9	...	
Ganges ...	Ditto ditto ...	...	77,322 9 6	77,322 9 6	77 322 9 6	...	
Jhánsi ...	Ditto ditto ...	...	7,672 13 7	7,672 13 7	7,672 13 7	...	
Lalitpur ...	Ditto ditto ...	...	10,958 10 0	10,958 10 0	10,958 10 0	...	
Bánda ...	Ditto ditto ...	272 4 6	7,846 0 8	8,118 5 2	7,744 13 8	373 7 6	
	Total ...	—635 4 6	5,34,381 5 5	5,33,746 0 11	5,34,280 2 5	—534 1 6	

CALCUTTA:
The 29th May, 1884.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller General (Forests).

ANNUAL FORM No. 57—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Financial Results of the year 1883-84.

Division.	*Timber and other produce removed from the forests by Government agency.*		*Other revenue.*		*Formation, protection, and improvement of forests.*	*Total.*		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction ...	...	...	2	...	...	2	...	
Naini Tal ...	25,790	18,347	2,835	4,599	6 111	28,625	29,057	
Ránikhet ...	25,055	18,572	3 095	3,972	6,915	28.150	29,459	
Kumaun ...	65,115	32,959	1,73,063	26,004	28,814	2,38,178	87,777	
Garhwál ...	5,099	16,860	1,30,527	21,941	25,061	1,35,626	63,862	
Ganges ...	9,034	19,454	68,288	11,824	9,745	77,322	41,023	
Jhánsi ...	894	1,633	6,779	748	1,638	7,673	4,019	
Lalitpur ...	4,470	3,195	6,489	1,202	2,252	10,959	6,649	
Bánda ...	2,469	2,098	5,276	968	980	7,745	4,046	
Total ...	1,37,926	1,13,118	3,96,364	71,258	81,516	5,34,280	2,65,892	

NAINI TAL:
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No 58.—(SUGGESTED)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH

Trees felled by Government Agency during the year 1883-84 (*Selection fellings*)

Division	Trees felled. Description.	Number	Remarks.
Naini Tal ...	Chir	293	Converted into logs
	Rhododendron	55	Commissariat fuel.
	Oak	48	
	Dry oak	2	Other fuel
	Oak	2	
	Miscellaneous	1	
	Oak	40	Charcoal
	Total	441	
Ranikhet	Chir . ..	1,234	Used by the Department for repairs of fences and Government buildings, as follows — Fence Buildings; Mature . 7 4; Poles 1 179 44
	Chir ...	935	Of these 188 were dead trees
	Oak ...	22	For Commissariat fuel 5 dead trees
	Miscellaneous	56	3 dead trees
	Chir	558	Cut up in clearing boundary and fire-lines and used for Commissariat fuel
	Oak	10	
	Miscellaneous ..	3	
	Total	2 218	
Kumaun ...	Sál	1,438	Converted into scantlings
	Sein	4	
	Total ...	1,442	
Garhwal ...	*Nil* ...	...	
Ganges	Boxwood	200	Sent for sale to Messrs Churchill and Sim, London
	Miscellaneous	4 710	Tors and ballis for the Ganges Canal works.
	Total ...	4 910	
Jhánsi .	Kardhai	367	Converted into scantlings
	Dhow	194	
	Total ...	561	
Lalitpur ...	Dhow	1,439	Ditto
	Kari	1 015	
	Seja	421	
	Bel	14	
	Teak	4	
	Total ..	2,893	
Banda	*Nil* ..		
	GRAND Total	12,465	

Abstract

Description of trees	1st class above 6′ in girth	2nd class 4½′—6′	3rd class 1½′—4½′	4th class under 1½′	Total of each kind of tree	Total of cubic feet
Chir	285	291	1,487	357	2,420	47,239
Oak ..	21	93	70	...	184	6 440
Sál ..	163	999	276	...	1,438	18,984
Sein ..	4		...	...	4	223
Box ...	...	...	200		200	556
Teak ..	...			4	4	10
Miscellaneous	10	34	2,143	6 088	8,275	22,836
Total ...	483	1,357	4 176	6,449	12,465	96 288

NAINI TAL
The 22nd July, 1884

G. GRIFIG,
Conservator of Forests, Central Circle, N W P. and Oudh.

ANNUAL FORM No. 59.—(SUGGESTED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outturn of timber and other produce cut and collected by Government Agency during the year 1883-84.

Division.	Produce cut and collected. How obtained.	Description.	Number or quantity.	Cubic feet.	Remarks.
Naini Tal ...	Selection fellings ...	Chir logs ...	1,454	12,400	
	Ditto ...	„ ballis ...	27	18	
	Ditto ...	„ slabs ...	464	137	
		Total, timber ...	1,945	12,555	
	Selection fellings ...	Firewood ...	mds. 4,870	...	
	Fallen wood ...	Ditto ...	mds. 16,157	...	
		Total, firewood ...	mds. 21,027	...	
	Selection fellings ...	Charcoal ...	mds. 416	...	
	Fallen wood ...	Ditto ...	mds. 396	...	
		Total, charcoal ...	mds. 812	...	
	Collection ...	Lime	mds. 82	...	
Bánikhet ...	Selection fellings ...	Firewood	mds. 14,611	...	
	Fallen wood ...	Ditto	mds. 38,004	...	
	Clearances ...	Ditto	mds. 20,868	...	
		Total, firewood ...	mds. 73,683	...	
	Confiscated, drift and waif wood.	Chir tree	1	36	
Kumaun ...	Selection fellings ...	Sál karis	10,561	18,959	
	Ditto ...	Sein „	81	224	
	Ditto ...	Sál joras	41	62	
	Clearances ...	„ sleepers	3	4	
	Ditto ...	„ karis	285	559	
	Ditto ...	„ joras	3	4	
		Total, timber ...	10,974	19,812	
	Confiscated, drift and waif wood.	Sál pieces ...	52	96	
Garhwál ...	Ditto ...	Various ...	Not known.	2,097	
Ganges ...	Selection fellings ...	Kokat ballas, ballis and tors.	5,005	12,895	
	Ditto ...	Boxwood pieces ...	389	556	
		Total, timber ...	5,394	13,451	
	Confiscated, drift and waif wood.	Sál trees ...	2	14	
		Pieces ...	5	22	
Jhánsi ...	Selection fellings ...	Miscellaneous ballis ...	575	862	
	Thinnings ...	Firewood ...	mds. 1,998	...	
	Tops and branches ...	Charcoal ...	mds. 207	...	
	Thinnings ...	Bamboos ...	No. 10,445	...	
	Ditto ...	Kiras ...	No. 3,252	...	
	Ditto ...	Kurias ...	No. 35,799	...	
Lalitpur ...	Selection fellings ...	Miscellaneous ballis ...	3,786	5,015	
	Thinnings ...	Bamboos	855,846	...	
	Ditto ...	Kurias	95,768	...	
	Clearance ...	Ditto	34,800	...	
	Confiscated, drift and waif wood.	Miscellaneous ballis ...	2	4	

ANNUAL FORM No. 59.—(Suggested).

Forest Department, Central Circle, North-Western Provinces and Oudh.

Outturn of timber and other produce cut and collected by Government Agency during the year 1883-84—(concluded).

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or quantity.	Cubic feet.	
Bánda ...	Thinnings ...	Miscellaneous ballis ...	7,786	7,786	
	Ditto ...	Dandia ...	250	125	
	Conversion ...	Dhura	1,452	182	
	Thinnings ...	Sachra	300	50	
	Ditto ...	Harris	64	32	
	Ditto ...	Korou	4,100	1,366	
	Ditto ...	Yokes	64	8	
	Ditto ...	Jot	24	6	
		Total, timber ...	14,040	9,555	
	Thinnings ...	Bamboos	No. 43,190	...	
	Collection ...	Hides	" 4	...	
	Ditto ...	Mahua	Mds. 127	...	

Abstract of the Circle.

		Chír logs	1,454	12,400	
		Sál sleepers... ...	3	4	
		" karis	10,846	19,518	
		Sein "	81	224	
		Sál joras	44	66	
		Kokat ballas, ballis and tors.	5,005	12,895	
		Chír ballis and slabs ...	491	155	
		Miscellaneous ballis ...	12,147	13,663	
		Boxwood pieces ..	389	556	
		Dandia, dhura, sachras, harris, korou, yoke, and jot.	6,254	1,769	
		Total, timber ...	36,714	61,250	
		Firewood	Mds. 96,708	...	
		Charcoal	Mds. 1,019	...	
		Bamboos	No. 9,09,481	...	
		Kiras	No. 3,252	...	
		Kurias	No. 1,66,367	...	
		Hides	No. 4	...	
		Mahua	Mds. 127	...	
		Lime	Mds. 82	...	
		Confiscated, drift and waif wood.			
		Trees	3	50	
		Pieces	59	2,219	

Naini Tal:
The 22nd July, 1884.

G. GRIEG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 60.—[SUGGESTED.]

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce received from Forests in Sale Depôts during the year 1883-84.

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks.
Naini Tal ...	Naini Tal ...	Ash karis	1	1	
		Ash planks	51	34	
		Charcoal	812	Mds.	
		Lime	82	"	
	Kahla ...	Chír karis	1,929	3,342	
		" planks	15,949	8,834	
		" ballis	27	18	
Bánikhet ...	Bánikhet ...	Firewood	59,511	Mds.	
	Chaubattla ...	Ditto	12,646	"	
Kumaun ...	Ramnagar ...	Sál karis	13,369	23,683	
		" joras	145	220	
		" sleepers	10	13	
	Chorgalia ...	" karis	977	1,637	
		Sein karis	1,559	3,421	
		" planks	11	13	
Garhwál ...	...	...	...	...	
Ganges ...	Kauria ...	Sein karis	7,382	12,123	
		Jaman karis	1,146	1,920	
		Kokat karis	3,114	5,036	
		Miscellaneous ballis ...	561	949	
Jhánsi ...	Jhánsi ...	Firewood	1,395	Mds.	
		Charcoal	207	"	
		Bamboos	10,445	Nos.	
		Kiras	817	"	
		Kurias	16,580	"	
	Mau ...	Firewood	674	Mds.	
		Kiras	2,435	Nos.	
		Kurias	19,279	"	
Lalitpur ...	Lalitpur ...	Ballis	279	427	
		Bamboos	79,996	Nos.	
	Talbehat ...	Ballis	355	310	
		Bamboos	168,460	Nos.	
		Kurias	16	"	
	Maraura ...	Ballis	197	316	
		Bamboos	83,935	Nos.	
		Kurias	23,468	"	
	Bansi ...	Ballis	202	303	
		Bamboos	52,706	Nos.	
Bánda ...	Manikpur ...	Ballis	3,653	3,653	
		Dhúra	184	23	
		Haris	71	35	
		Yokes	52	7	
		Bamboos	8,864	Nos.	
	Karwi ...	Ballis	154	154	
		Korou	2,001	667	
		Bamboos	7,932	Nos.	
		Hides	2	"	

Abstract of the Circle.

		Sál sleepers	10	13
		" karis	14,346	25,320
		Sein karis	8,941	15,544
		Chír karis	1,929	3,342
		Jaman karis	1,146	1,920
		Ash karis	1	1
		Kokat karis	3,114	5,036
		Sein planks	11	13
		Chír planks	15,949	8,834
		Ash planks	51	34
		Sál joras	145	220
		Chír ballis	27	18
		Miscellaneous ballis ...	5,881	6,112
		Dhúra, korou, harris, and yokes.	2,308	732
		Total, timber ...	53,359	67,139
		Firewood	74,156	Mds.
		Charcoal	1,019	"
		Bamboos	412,388	Nos.
		Kiras	2,252	"
		Kurias	59,343	"
		Hides	2	"
		Lime	82	Mds.

NAINI TAL :
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 61.—(SUGGESTED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government Agency during the year 1883-84.

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		Sold from Depôts.			
Naini Tal	Naini Tal	Chír karis	1	9	
		Ash karis	5	3	
		Chír planks	27	16	
		Ash planks	51	34	
		Charcoal	4,002 Mds.		
		Lime	1,000 "		
	Kahla	Chír karis	5,226	10,121	
		" planks	16,374	9,207	
		" ballis	45	32	
		" slabs	67	44	
Ránikhet	Ránikhet	Firewood	54,001 Mds.		
	Chaubattia	Ditto	14,939 "		
Kumaun	Ramnagar	Sál logs	2	142	
		" karis	14,838	25,072	
		Haldú karis	800	1,333	
		Jaman karis	883	1,435	
		Sál joras	104	159	
	Chorgalia	Sál logs	135	6,085	
		" sleepers	10,000	13,333	
		" karis	1,105	2,899	
		Sein karis	1,990	3,279	
		" planks	50	55	
Garhwál	Sanch	Sein karis	35	77	
	Kálágarh	Sál karis	3,200	5,060	
Ganges	Kauria	Sein karis	9,152	14,782	
		Jáman karis	1,146	1,920	
		Kokat karis	3,114	5,036	
Jhánsi	Jhánsi	Miscellaneous ballis	95	142	
		Firewood	1,336 Mds.		
		Charcoal	144 "		
		Bamboos	9,066 Nos.		
		Kiras	2,502 "		
		Kurias	22,622 "		
	Mau	Firewood	609 Mds.		
		Charcoal	18 "		
		Kiras	2,155 Nos.		
		Kurias	10,485 "		
Lalitpur	Lalitpur	Miscellaneous ballis	76	119	
		Bamboos	55,043 Nos.		
	Talbehat	Miscellaneous ballis	335	310	
		Bamboos	166,565 Nos.		
		Kurias	16 "		
	Maraura	Miscellaneous ballis	185	298	
		Bamboos	73,231 Nos.		
		Kurias	15,545 "		
	Bánsi	Miscellaneous ballis	50	75	
		Bamboos	42,558 Nos.		
Bánda	Manikpur	Miscellaneous ballis	3,518	3,518	
		Dhúra	648	81	
		Haris	58	29	
		Yokes	55	7	
		Bamboos	3,500 Nos.		
	Karwi	Miscellaneous ballis	491	491	
		Dhúra	162	21	
		Korou	2,001	667	
		Yokes	10	1	
		Bamboos	8,432 Nos.		
		Hides	2 "		

FORM No. 61.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government Agency during the year 1883-84.

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		Sold locally.			
Naini Tal ...	Various ...	Chir slabs	464	137	
		Firewood	21,027	Mds.	
Kumaun ...	Mota Haldu ...	Haldu sleepers	50	75	
	Kilpura Chauki ...	Confiscated sál	52	96	
Garhwál ...	Ramganga drift-wood.	Drift and waif wood ...	...	2,097	
Ganges ...	Various ...	Kokat ballas, ballis and tors,	17,072	40,046	
		Drift wood, sál pieces ...	5	22	
		Confiscated sál trees ...	2	14	
Jhánsi ...	" ...	Miscellaneous ballis ...	14	21	
Lalitpur ...	Various ...	Miscellaneous ballis ...	2,775	3,663	
		Bamboos	488,149	Nos.	
		Kurias	90,684	"	
Bánda ...	Various ...	Miscellaneous ballis ...	738	738	
		Dandia	203	101	
		Dhura	30	3	
		Sachra	104	17	
		Korou	4,860	1,620	
		Jot	24	6	
		Bamboos	20,710	Nos.	
		Hides	2	"	
		Mahua	127	Mds.	
		Lime	1,140	"	
		Abstract of the Circle.			
		Sold from Depôts.			
		Sál logs ...	137	6,227	
		" sleepers ...	10,000	13,333	
		" karis ...	19,143	32,531	
		Haldu karis ...	800	1,333	
		Sein karis ...	11,177	18,138	
		Jáman karis ...	2,029	3,355	
		Chír karis ...	5,227	10,122	
		Kokat karis ...	3,114	5,036	
		Ash karis ...	5	3	
		Sein planks ...	50	55	
		Chír planks ...	16,401	9,223	
		Ash planks ...	51	34	
		Sál joras ...	104	159	
		Chír ballis and slabs ...	112	76	
		Miscellaneous ballis ...	4,750	4,953	
		Dandia, dhura, korou, karis, yokes, &c.	2,934	806	
		Total, timber ...	76,034	105,384	
		Firewood ...	70,885	Mds.	
		Charcoal ...	4,164	"	
		Bamboos ...	3,58,395	Nos.	
		Kiras ...	4,657	"	
		Kurias ...	48,668	"	
		Hides ...	2	"	
		Lime ...	1,000	Mds.	
		Sold locally.			
		Haldu sleepers ...	50	75	
		Chír slabs ...	464	137	
		Kokat ballas, ballis and tors,	17,072	40,046	
		Miscellaneous ballis ...	3,527	4,422	
		Dandia, dhura, sachra, korou, and jot.	5,221	1,747	
		Confiscated, drift and waif wood.	59	2,229	
		Total, timber ...	26,393	48,656	
		Firewood ...	21,027	Mds.	
		Bamboos ...	508,859	Nos.	
		Kurias ...	90,684	"	
		Hides ...	2	"	
		Mahua ...	127	Mds.	
		Lime ...	1,140	"	

NAINI TAL:
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1883-84.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet
Balance at commencement of the year.				
Naini Tal Division, Chír karis	3,472	7,038		
Ash karis	4	2		
Chír planks	1,659	1,057		
Chír ballis	18	14		
Chír slabs	71	46	5,224	8,157
Charcoal	8,040	Mds.	8,040	Mds.
Lime	924	"	924	"
Ránikhet ditto, ...Firewood	10,466	Mds.	10,466	Mds.
Kumaun ditto... Sál logs	702	36,810		
Haldu logs	2	64		
Sál sleepers	10,376	13,835		
Sál karis	24,211	40,317		
Haldu karis	800	1,333		
Sein karis	1,482	2,586		
Jaman karis	883	1,435		
Dhauri karis	2	3		
Sein planks	43	46		
Sál joras	12	33	33,463	96,462
Garhwál ditto... Sál karis	3,320	5,260		
Sein karis	35	635	3,355	5,895
Ganges ditto ...Sein karis	1,770	2,659	1,770	2,659

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Removed by purchasers from Depôts.				
Sál logs	137	6,227		
Sál sleepers	10,000	13,333		
Sál karis	19,143	32,531		
Haldu karis	800	1,333		
Sein karis	11,177	18,138		
Jamun karis	2,029	3,355		
Chír karis	5,727	10,122		
Kokat karis	3,114	5,036		
Ash karis	5	3		
Sein planks	50	55		
Chír planks	16,401	9,223		
Ash planks	51	34		
Sál joras	104	159		
Chír ballis and slabs	112	76		
Miscellaneous ballis	4,750	4,953		
Dandia, dhura, koron, baris, yokes, &c. ...	2,934	806	76,034	105,384
Firewood	70,885	Mds.	70,885	Mds.
Charcoal	4,164	"	4,164	"
Bamboos	358,395	Nos.	358,395	Nos.
Kiras	4,657	"	4,657	"
Kurias	48,668	"	48,668	"
Hides	2	"	2	"
Lime	1,000	Mds.	1,000	Mds.
Sold Locally.				
Haldu sleepers	50	75		
Chír slabs	464	137		
Kokat ballas, ballis, and tors	17,072	40,046		

Jhánsi ditto ...	Miscellaneous ballis ...	811	358	811	358
	Firewood	661	Mds.	661	Mds.
	Charcoal	550	"	550	"
	Bamboos	4,291	Nos.	4,291	Nos.
	Kiras	2,720	"	2,720	"
	Kurias	23,252	"	23,252	"
	Baskets	94	"	94	"
Lalitpur ditto ...	Bamboos	1,554	"	1,554	"
Bánda ditto ...	Miscellaneous ballis ...	1,510	1,510		
	Dhúra	659	82		
	Haris	17	9		
	Yokes	28	3	2,214	1,604
	Bamboos	700	Nos.	700	Nos.
Total balance ...	Timber	...	...	51,337	115,135
	Firewood	...	...	11,127	Mds.
	Charcoal	...	...	8,590	"
	Bamboos	...	...	5,645	Nos.
	Kiras	...	...	2,720	"
	Kurias	...	...	23,252	"
	Baskets	...	...	94	"
	Lime	...	...	924	Mds.

Received from the Forests in Depôts.

Sál sleepers	10	13		
Sál karis	8,346	25,320		
Sein karis	8,941	15,544		
Chír karis	1,929	3,342		
Jaman karis	1,146	1,920		
Ash karis	1	1		
Kokat karis	3,114	5,036		
Bein planks	11	13		
Chír planks	15,949	8,834		
Ash planks	51	34		
Sál joras	145	220		
Chír ballis	27	18		
Miscellaneous ballis	5,381	6,112		
Dhura, koron, haris and yokes	2,808	732	53,359	67,139
Firewood	74,156	Mds.	74,156	Mds.
Charcoal	1,019	"	1,019	"
Bamboos	412,338	Nos.	412,338	Nos.
Kiras	3,252	"	3,252	"
Kurias	59,343	"	59,343	"
Hides	2	"	2	"
Lime	82	Mds.	82	Mds.

Miscellaneous ballis	3,527	4,422		
Dandia, dhúra, sachra, korón, &c.	5,221	1,747		
Confiscated, drift and waif wood	59	2,229	16,393	48,656
Firewood	21,027	Mds	21,027	Mds.
Bamboos	5,08,859	Nos.	508,859	Nos.
Kurias	90,684	"	90,684	"
Hides	2	"	2	"
Mahua	127	Mds.	127	Mds.
Lime	1,140	"	1,140	"

CONVERTED IN DEPÔTS.

Lost or written off as useless.

Sein karis	...	557	...	557
Firewood	38	Mds.	38	Mds.
Charcoal	57	"	57	"
Kiras	46	Nos.	46	Nos.
Kurias	109	"	109	"

Used by the Department.

Sál sleepers	14	19		
Sál karis	129	200		
Chír karis	66	77		
Chír planks	192	100		
Chír slabs	4	2		
Miscellaneous ballis	31	43		
Dhura	2	...	429	441
Firewood	1	Md.	1	Md.
Charcoal	2,148	"	2,148	"
Bamboos	200	Nos.	200	Nos.
Kiras	20	"	20	"
Lime	6	Mds.	6	Mds.

Transferred to other sale Depôts.

Miscellaneous ballis	220	220		
Dhura	140	17	360	237
Bamboos	500	Nos.	500	Nos.

ANNUAL FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1883-84—(concluded).

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Received from the Forests and sold locally.				
Haldu sleepers	50	75		
Chír slabs	464	137		
Kokat ballas, ballis and tors	17,072	40,046		
Miscellaneous ballis	3,527	4,422		
Dandia, dhura, sachra, koron and jot ...	5,221	1,747		
Confiscated drift and waif wood	59	2,229	26,393	48,656
Firewood	21,027	Mds.	21,027	Mds.
Bamboos	508,859	Nos.	508,859	Nos.
Kurias	90,684	"	90,684	"
Hides	2	"	2	"
Mahua	127	Mds.	127	Mds.
Lime	1,140	"	1,140	"
RECEIVED BY CONVERSION IN DEPÔTS.				
Received by transfer from sale Depôts.				
Miscellaneous ballis	220	229	...	...
Dhura	140	17	360	237
Bamboos	500	Nos.	500	Nos.

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Balance at close of the year.					
Naini Tal Division ...	Chír karis ...	108	181		
	Chír planks ...	1,015	568	1,123	749
	Charcoal ...	2,702	Mds.	2,702	Mds.
Ránikhet ditto ...	Firewood	13,683	Mds.	13,683	Mds.
Kumaun ditto ...	Sál logs	565	30,583		
	Haldu logs ...	2	63		
	Sál sleepers	372	496		
	Sál karis ...	22,614	38,166		
	Sein karis ...	1,001	2,728		
	Dhauri karis ...	2	3		
	Sein planks ...	4	4		
	Sál joras ...	53	94	24,613	72,138
Garhwál ditto		...	...	...	...
Ganges ditto		...	...	...	...
Jhánsi ditto ...	Miscellaneous ballis ...	752	1,128	752	1,128
	Firewood	676	Mds.	676	Mds.
	Charcoal	538	"	538	"
	Bamboos	5,470	Nos.	5,470	Nos.
	Kiras	1,249	"	1,249	"
	Kurias	25,895	"	25,895	"
	Baskets	94	"	94	"
Lalitpur ditto ...	Miscellaneous ballis ...	367	554	367	554
	Bamboos ...	49,254	Nos	49,254	Nos.
	Kurias ...	7,923	"	7,923	"

								Bánda ditto	Miscellaneous ballis	1,302	1,302		
									Dhura	31	4		
									Haris	30	15		
									Yokes	15	2	1,378	1,323
									Bamboos	5,564	Nos.	5,564	Nos.
								Total, Balance	Timber			28,233	75,892
									Firewood			14,359	Mds.
									Charcoal			3,240	"
									Bamboos			60,288	Nos.
									Kiras			1,249	"
									Kurias			33,818	"
									Baskets			94	"
Total	Timber					131,449	231,167	Total	Timber			131,449	231,167
	Firewood					106,310	Mds.		Firewood			1,06,310	Mds.
	Charcoal					9,609	"		Charcoal			9,609	"
	Bamboos					928,242	Nos.		Bamboos			928,242	Nos.
	Kiras					5,972	"		Kiras			5,972	"
	Kurias					173,279	"		Kurias			173,279	"
	Baskets					94	"		Baskets			94	"
	Hides					4	"		Hides			4	"
	Mahua					127	Mds.		Mahua			127	Mds.
	Lime					2,146	"		Lime			2,146	"

NAINI TAL :
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 63.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84.

Division.	Produce removed. Description.	Number or quantity.		Amount of revenue.	Amount actually realized during the year.	Remarks.
				Rs.	Rs.	
Naini Tal ...	Sál	C. ft.	35	18	18	
	Chir	,,	2,239	411	411	
	,, poles	,,	8	5	5	
	Miscellaneous poles... ...	,,	1,230	68	68	
	Alder	,,	133	17	17	
	Oak	,,	50	3	3	
	Total, timber ...	C. ft.	3,695	522	522	
	Firewood	Mds.	36	9	9	
	,, tickets 3,328 ...	,,	66,560	1,664	1,664	
	Charcoal...	,,	5	1	1	
	Total, firewood and charcoal ...	Mds.	66,601	1,674	1,674	
	Ghingaru sticks	...		20	20	
	Ringals, headloads		157	19	19	
	Grazing	...		82	82	
	Other minor produce ...	...		220	220	
	Total, revenue under II. ...	...		2,537	2,537	
Ránikhet ...	Chir	C. ft.	17,626	1,343	1,343	
	Oak	,,	63	6	6	
	Total ...	C. ft.	17,689	1,349	1,349	
	Charpoys	Nos.	287	18	18	
	Total, timber ...	C. ft. Nos.	17,689 287	1,367	1,367	
	Firewood for squatters ...	Mds.	2,760	172	172	
	Grazing	...		572	572	
	Other minor produce ...	...		704	704	
	Total, revenue under II. ...	...		2,815	2,815	
Kumaun ...	Sál	C. ft.	169,207	95,717	95,717	
	Haldu and dhouri	,,	60,055	14,270	14,270	
	Sein	,,	145	36	36	
	Jamun	,,	50	14	14	
	Shisham...	,,	17,225	5,265	5,265	
	Tún	,,	5,269	1,661	1,661	
	Sandan	,,	397	840	840	
	Khair	,,	24,182	9,068	9,068	
	Total timber ...	C. ft.	276,537	1,26,871	1,26,871	
	Firewood	Mds.	20,917	2,616	2,616	
	Charcoal...	,,	19,588	2,448	2,448	
	Bamboos...	Nos.	4,258,997	15,244	15,244	
	Grazing	...		8,405	8,405	
	Other minor produce ...	...		16,049	16,049	
	Total, revenue under II. ...	...		1,71,633	1,71,633	
Garhwál ...	Sál	C. ft.	135,558	79,002	79,002	
	Sein	,,	8,373	2,186	2,186	
	Shisham	,,	1,294	404	404	
	Tún	,,	1,375	430	430	
	Sandan	,,	10,069	3,428	3,428	
	Kokat	,,	49,789	3,822	3,822	
	Khair	,,	3,003	1,501	1,501	
	Total, timber ...	C. ft.	210,361	90,773	90,773	

FORM No. 63.—(Suggested).

Forest Department, Central Circle, North-Western Provinces and Oudh.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84—(continued.)

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs.	Rs.	
Garhwál ...	Firewood	Mds. 67,323	1,296	1,296	
	Charcool	,, 1,151	143	143	
	Bamboos	Nos. 75,08,640	27,252	27,252	
	Grazing	...	2,975	2,975	
	Other minor produce ...	...	5,661	5,661	
	Total, revenue under II. ...	...	1,28,100	1,28,100	
Ganges ...	Sál	C. ft. 8,439	3,016	3,016	
	Sein	,, 7,906	2,360	2,360	
	Chír	,, 22	2	2	
	Shisham	,, 3,109	949	949	
	Tún	,, 109	34	34	
	Deodár	,, 55,440	14,034	14,034	
	Sandan	,, 2,128	547	547	
	Kokat	,, 8,523	1,065	1,065	
	Khair	,, 343	107	107	
	Total, timber ...	C. ft. 86,019	22,114	22,114	
	Firewood	Mds. 99,948	1,991	1,991	
	Bamboos	Nos. 9,429,304	36,861	36,861	
	Grazing	...	2,353	2,353	
	Other minor produce ...	...	3,137	3,137	
	Total, revenue under II. ...	...	66,456	66,456	
Jhánsi ...	Miscellaneous ballis ...	C. ft. 113	9	9	
	Firewood	Mds. 13,474	1,379	1,379	
	Ditto by contract ...	...	211	211	
	Charcoal	,, 582	226	226	
	Bamboos	Nos. 103	4	4	
	Grazing	...	2,576	2,576	
	Other minor produce* ...	...	274	274	*Includes 56 kiras and 17,521 kurias; the rest of the minor produce consists of articles too insignificant and numerous to detail.
	Total, revenue under II. ...	...	4,679	4,679	
Lalitpur ...	Miscellaneous ballis ...	C. ft. 10,071	423	423	
	Kurias	Nos. 2,03,612	510	510	
	Contract for making combs ...	...	5	5	
	Firewood	Mds. 18,720	232	232	
	Charcoal	,, 200	5	5	
	Bamboos	Nos. 313,191	786	786	
	Grazing	...	2,873	2,873	
	Other minor produce ...	...	1,654	1,654	
	Total, revenue under II. ...	...	6,488	6,488	
Bánda ...	Yokes and harris, &c., by contract	...	205	184	
	Firewood by contract ...	...	208	190	
	Charcoal do. ...	...	49	41	
	Bamboos do. ...	...	160	125	
	Grazing	...	633	540	
	Other minor produce ...	...	2,792	2,714	
	Total, revenue under II. ...	...	4,042	3,794	
	Total, revenue of the Circle under II.	...	3,86,751	3,86,502	

FORM No. 63.—(SUGGESTED).

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84—(concluded).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
	Abstract of the Circle.		Rs.	Rs.	
	Sál	C. ft. 313,239	1,77,753	1,77,753	
	Haldu and dhouri	" 60,056	14,270	14,270	
	Seiu	" 16,424	4,582	4,582	
	Chir	" 19,887	1,756	1,756	
	Jamun	" 56	14	14	
	Shisham and kokat	" 79,940	11,505	11,505	
	Tún	" 6,753	2,125	2,125	
	Deodar	" 55,440	14,034	14,034	
	Sandan	" 13,494	4,815	4,815	
	Alder	" 133	17	17	
	Oak	" 113	9	9	
	Khair	" 27,528	10,676	10,676	
	Miscellaneous poles for chapars,	" 1,238	73	73	
	Miscellaneous ballis ...	" 10,184	432	432	
	Yokes and haris by contract ...	...	205	184	
	Contract for making combs ...	...	5	5	
	Total, timber ...	C. ft. 604,485	2,42,271	2,42,250	
	Charpoys	Nos. 287	18	18	
	Kurias	" 203,612	510	510	
	Firewood	Mds. 223,178	7,695	7,695	
	" tickets 3,328 ...	" 66,560	1,664	1,664	
	" by contract ...	...	414	401	
	Charcoal	" 21,526	2,823	2,823	
	" by contract ...	...	50	41	
	Ghingaru sticks by contract ...	...	20	20	
	Bamboos	Nos. 21,510,235	80,147	80,147	
	" by contract ...	...	160	125	
	Ringal, head-loads	157	19	19	
	Grazing	...	20,469	20,376	
	Other minor produce* ...	...	30,491	30,413	* Includes 56 kiras and 17,521 kurias; the rest of the minor produce consists of articles too insignificant and numerous to detail.
	Total, revenue of the Circle under II.	...	3,86,751	3,86,502	

NAINI TAL:
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 64.—(SUGGESTED.)

FOREST DEPARTMENT, CENTRAL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue derived from, and expenditure incurred on, timber and other produce sold to public departments from depôt during the year 1883-84.

Name of Department.	Particulars of supplies.	Amount supplied.	Rate. At	Rate. Per	Amount of revenue. Due.	Amount of revenue. Received.	Amount of revenue. Outstanding.	Cost to Forest Department. Timber expenses under A.I.	Cost to Forest Department. Quota of all other expenditure chargeable against timber, &c.	Cost to Forest Department. Total.	Comparison of revenue and expenditure. Surplus.	Comparison of revenue and expenditure. Deficit.	Remarks.
			Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Public Works Department, Provincial Works, Rohilkhand Division.	Sál logs ...	10= 517′	1 8 0	c. ft.	776 0 0	776 0 0	...	194 0 0	411 0 0	605 0 0	171 0 0	...	
Public Works Department, Provincial Works, Naini Tal Sub-Division.	Chír karis ...	447= 953′	Various...	...	566 0 0	566 0 0	...	622 0 0	64 0 0	686 0 0	314 0 0	...	
	Chír planks ...	960= 571′	Ditto ...	...	434 0 0	434 0 0	...						
Public Works Department, Northern Division, Ganges Canal.	Kokat ballas ...	1,533=12,994′	Ditto ...	...	2,961 0 0	2,961 0 0	...	1,095 0 0	460 0 0	†4,431 0 0	6,031 0 0	...	*Includes Rs. 5,000 received in advance during 1882-83. †Includes Rs. 1,922 charged during 1882-83.
	Kokat ballis ...	4,881= 4,362′	Ditto ...	...	2,746 0 0	2,746 0 0	...	1,055 0 0					
	Kokat tors ...	10,658=15,700′	Ditto ...	...	4,755 0 0	4,755 0 0	...	1,821 0 0					
Telegraph Department.	Chír karis ...	8= 24′	1 12 0	each ...	14 0 0	14 0 0	...	9 0 0	1 0 0	10 0 0	4 0 0	...	
Commissariat Department, Naini Tal.	Firewood ...	Mds. 20,827	46 5 8	mds. 100	9,654 0 0	9,654 0 0	...	6,788 0 0	1,349 0 0	8,137 0 0	1,517 0 0	...	
Commissariat Department, Ránikhet.	Ditto ...	„ 14,080	36 8 0	„ 100	5,139 0 0	25,064 0 0	...	14,485 0 0	3,420 0 0	17,905 0 0	7,149 0 0	...	
	Ditto ...	„ 54,860	36 4 10	„ 100	19,915 0 0								
		Total ...	...	...	46,960 0 0	46,960 0 0	...	26,069 0 0	5,705 0 0	31,774 0 0	15,186 0 0	...	
										Deduct surplus (or deficit) ...	...	...	
										Balance for the Department ...	15,186 0 0	...	

NAINI TAL:
The 22nd July, 1884.

G. GRIEG,
Constr. of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 65.—(Suggested).

Forest Department, Central Circle, North-Western Provinces and Oudh.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1883-84.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.
Timber.			Rs.			Rs.		Rs.
Sál logs	702	36,810	55,215	565	30,588	30,583		
Haldu logs	2	64	32	2	64	24		
Sál sleepers	10,376	13,835	10,376	372	496	300		
„ karis	27,531	45,577	44,919	22,614	38,166	43,837		
Haldu karis	800	1,333	666	...	...	...		
Sein karis	3,237	5,880	3,661	1,001	2,728	1,322		
Chír „	3,472	7,038	4,414	108	181	113		
Jamun karis	883	1,435	538	...	...	...		
Dhouri „	2	3	2	2	3	1		
Ash „	4	2	2	...	...	...		
Sein planks	43	46	16	4	4	1		
Chír „	1,659	1,057	665	1,015	568	855		
Sál joras	12	33	40	53	94	146		
Chír ballis	18	14	4	...	...	...		
Miscellaneous ballis ...	1,821	1,868	218	2,421	2,984	442		
Chír slabs	71	46	13	...	...	...		
Dhuras	659	82	82	31	4	4		
Haris	17	9	2	30	15	4		
Yokes	28	2	4	15	2	2		
Total, timber ...	51,357	115,135	1,20,869	28,233	75,892	77,134	...	43,735
Firewood and charcoal, &c.								
Firewood Mds.	11,127	...	3,900	14,359	...	5,050		
Charcoal „	8,590	...	8,258	3,240	...	2,916		
Bamboos No.	6,545	...	60	60,288	...	493		
Kiras „	2,720	...	140	1,249	...	57		
Kurias „	23,252	...	40	33,818	...	103		
Baskets „	94	...	3	94	...	3		
Lime Mds.	924	...	462	...	...	...		
Total, fuel, &c. ...	....	...	12,863	...	...	8,622	...	4,241
	Total ...		1,33,732	Total ...		85,756	...	47,976

Net difference against the year, Rs. 47,976.

FORM No. 65.—(Suggested.)

Forest Department, Central Circle, North-Western Provinces and Oudh.

Abstract showing the value of live and dead stock for the year 1883-84.

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.	
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.
Live stock.		Rs.		Rs.	Rs.	
Elephants	7	11,200	8	13,700		
Bullocks	41	794	48	929		
Total, live tock ...	48	11,994	56	14,629	2,635	...
Dead stock.						
Buildings	63	63,076	74	75,096		
Sheds	2	16	2	16		
Tools and plants ...	21,629	22,013	19,559	20,788		
Carts	20	436	25	612		
Almira	3	120	3	120		
Gunpowder barrels ...	5	429	5	429		
Ditto loose lbs.	58	58	7	7		
Slow match barrels ...	3	260	3	252		
Miscellaneous qrts.	6	...	6	...		
Ditto lbs.	9	...	9	...		
Total, dead stock ...	21,798	86,408	19,693	97,320	10,912	...
	Total ...	98,402	Total ...	1,11,949	13,547	

Net difference in favor of the year, Rs. 13,547.

Naini Tal : .
The 22nd July, 1884.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

OUDH CIRCLE REPORT.

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No. $\frac{L.G.}{63}$ OF 1884-85.

FROM

CAPTAIN E. S. WOOD,

Conservator of Forests, N.-W. P. and Oudh, Oudh Circle,

To

C. J. CONNELL, ESQ.,

Offg. Secy. to Govt., N.-W. P. and Oudh, in the Rev. (Forests) Dept.

DATED NAINI TAL, THE 11TH AUGUST, 1884.

SIR,

I HAVE the honor to forward Administration Report of the Forests of the Oudh Circle for the year 1883-84 and to regret the delay in submission, but the extra work in the year has been extremely heavy; this threw the divisional accounts late, and the consolidated figures were only received from the Comptroller-General (Forests) on the 29th of July last, and the information that these figures may be accepted officially has only been received this day.

I have the honor to be,
SIR,
Your most obedient servant,

E. S. WOOD, CAPTAIN,

Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

OUDH CIRCLE.

N.-W. PROVINCES AND OUDH.

ANNUAL PROGRESS REPORT

OF

FOREST ADMINISTRATION

FOR THE YEAR ENDING 31st MARCH, 1884.

By Captain E. S. Wood, Conservator of Forests, Oudh Circle.

INTRODUCTION.

1. *Conservator's inspection of forests.*—I visited all the divisions of the Oudh Circle between October, 1883 and May, 1884; but owing to the visit of the Inspector-General of Forests in January and February, 1884, which took me back to the extreme west of the forests, where he left me to inspect the forests of the Central Circle, I had not time to visit the main Gonda forests at the foot of the Nepal hills, or to go over the whole of the Gorakhpur forests, though I visited most of the important works in the latter. I left Naini Tal on the 17th of October, 1883, saw the sleepers for the Rohilkhand and Kumaun Railway at Bareilly, stayed some time at Bahrámghát and joined camp at Baheri on the 25th of November, 1883, then visited Pilibhít, Bhira, and Kheri (trans-Sarda), returned to Shâhjahânpur to meet Dr. Schlich, accompanied him through Bhira, Kheri, Bhira again, and Pilibhít, leaving him at the end of my Circle, I then returned through Pilibhít, Bhira, Kheri, and on to Bahraich, visited the Nawábganj forests in the south of Gonda, and dâked to Gorakhpur, again visited Bahrámghát and reached Naini Tal on the 2nd May, 1884.

2. *Inspection of offices.*—I inspected all the divisional offices, found them in order, and reported the same to Government and to the Assistant Comptroller-General (Forests).

3. *System of working through and with district officers.*—The system has worked well again this year as usual.

4. *The year* 1883-84.—The year was marked by the very great activity in sleeper operations, being more than double as large as they were in the year 1882-83; to help in these Messrs. Hearle and Hobart-Hampden, from the School Circle, were temporarily attached to the Kheri Division, in which the heaviest works were carried on.

5. *Order of divisions.*—The usual order is followed in this report, divisions being named from west to east; and in giving divisional detail, when no division is named, it may be understood that there was nothing of interest under the special heading to report on in the divisions not named.

6. *Brief description of forests in the Oudh Circle.*—As desired by His Honor the Lieutenant-Governor, North-Western Provinces, and Chief Commissioner of Oudh in para. 3 of Resolution No. 947, Revenue Department (Forests), dated 20th November, 1883, I give a brief description of the forests of the Oudh Circle. Fuller accounts will be found in former Oudh Forest Reports and in Dr. Brandis' Suggestions, North-Western Provinces and Oudh, dated the 1st November, 1881, both in the introduction and in Chapters II. to V.

(1) *General.*—Before the amalgamation of the North-Western Provinces and Oudh, the present Conservator's charge only included the forests of Oudh proper situated in the districts of Kheri, Bahraich, and Gonda; there were a few forest grants in district Hardoi which have now been exchanged for a like area in the Bhira Sub-division of Kheri; but when these Provinces were amalgamated in 1877 the forests in Pilibhít (which adjoin the forests of the Bhira Sub-division of Kheri) and the forests in Gorakhpur (which are separated from the east of Gonda by the district of Basti) were added to those of Oudh and formed into a new circle, called the "Oudh Circle." The Gorakhpur forests were far away from the bulk of the forests under the Conservator of the North-Western Provinces and could be more easily controlled by the Oudh Conservator.

After this separation the other forests of the North-Western Provinces were made into two circles, *viz.*, the "Central Circle," which extends from the forests of the Oudh Circle to the Ganges, and the "School Circle," which is situated west of the Ganges.

(2) The area of the forests of the Oudh Circle are as below :—

		Square miles.
(*a*)	Pilibhít	137
(*b*)	Bhira (sub-division of Kheri)	164
(*c*)	Kheri (trans-Sarda)	263
(*d*)	Bahraich	257
(*e*)	Gonda	154
(*f*)	Gorakhpur	115+42
	Total ...	1,090+42=1,132

These make 8 single charges of about 141½ square miles apiece: (*a*) with (*b*), (*c*), and (*d*) being double charges, (*e*) and (*f*) single charges; (*a*) and (*b*) being under Mr. Ponsonby, Deputy Conservator; (*c*) being under Mr. Allan, Deputy Conservator, with two assistants, as at present the heaviest works are being carried on here; (*d*) under Mr. Dansey, Deputy Conservator; (*e*) under Mr. Rebsch, Assistant Conservator; and (*f*) under Mr. Campbell, Assistant Conservator.

(3) All the forests, with the exception of the western part of Bahraich and the main forests of Gonda, which lie at the foot of the Dundwa Range, are in the plains.

(4) The forests in the plains may be divided into three great classes, *viz.*—(i) sál, (ii) sissu and khair, (iii) grass. (i) The "sál forests," which contain many other species, are always on high, well-drained land; miscellaneous forests are where it is unsuitable for sál on lower grounds, but where sissu seed cannot naturally be watersown; (ii) "sissu and khair forests" are for the most part in lands that have been deposited in recent times by the action of water and which are even now subject to inundation; (iii) "grass," which may be in the low lying parts of sál forests and under water in the rains long enough to prevent tree growth, or mixed up with khair and sissu forests, where, owing to its greater adaptability, grass has got the mastery.

(5) The forests at the foot of the Dundwa range somewhat resemble the Bhábar forests of Kumaun. At the extreme west, where the aspect is to the south, they are principally composed of sál; where the aspect is to the south-west and the slope very dry, dhao (*anogeissus latifolia*) takes the place of sál; till at the extreme east of Gonda the aspect changes again to due south, when sál again appears. In the nála beds which run through these forests sissu and khair grow freely; but there are no trees of mature age, as in Kheri and Bahraich, either owing to their having been cut before the Forest Department obtained possession or from the constant shifting of the nála beds.

(6) "Scrub" is formed by ill treatment of the forests, or by thorns or bushes, which, owing to altered circumstances, find a footing where the trees of the superior species cannot.

(7) (*a*) *Pilibhít Division.*—The Pilibhít forests, about 137 square miles, are chiefly of sál, now only sál bushes and crooked saplings from coppice-shoots, forests

ruined by ill treatment continued for many years. Amongst the tree forests are larger stretches (locally called *chándars*) of sál scrub which, though perhaps hundreds of years old, never has attained a greater height than 4 or 5 feet. The forests of which the Pilibhít Division forms a part has its northern portion in the Taráí district, where it is known as the Bilheri forest. The Bilheri forest has been protected by Mr. Macdonald for some years and its superiority to the forests in Pilibhít is apparent to any person who sees the two together, as on the Mundiaghát road; the southern part of the forests extends into Kheri (Bhira Sub-division). The Pilibhít forests are in the form of a horse-shoe, the upper or northern edge being formed by the Taráí district, the eastern arm being rather longer than the western. The Mála swamp runs through the western arm; the eastern arm is bounded outside by the western high bank of the Sarda or Chowka river. Inside the horse-shoe lie the high lands of pargana Puranpur with the towns of Mádho Tánda and Puranpur.

Owing to the poor condition of this division little has been done in it except demarcation, fire conservancy, and making roads, houses, and wells. A little green sál is allowed to be cut by the charcoal-burners, but revenue is principally obtained from dead wood and spontaneous products which would otherwise be wasted. The portion of the forest in pargana Pilibhít is almost, if not quite, free of rights, and part of it has been protected from fires and grazing for a few years; but the inhabitants of pargana Puranpur claim destructive rights over the whole of the forest in their pargana. Mr. Whalley, the Collector of Pilibhít, appointed by the Government Forest Settlement Officer, has completed his report, which I have only lately received. The matter is with the Commissioner of Rohilkhand (the appellate court). I am, through Mr. Ponsonby, appealing against some of Mr. Whalley's decisions from the legal side of the question. The subject has to be referred to Government, and I will, in a separate communication, if so desired, give my views on the matter, as I think that Government should be in a position to regard the subject from all points.

These forests in Puranpur were once made over into grants for cultivation and the forests were given up for destruction; they remained in the hands of the Collector for some years, and were finally made over to the Forest Department about two years before the amalgamation of Oudh and the North-Western Provinces.

(*b*) *Bhira Sub-division of Kheri.*—The Bhira forests, about 164 square miles, are a continuation of the eastern arm of the Pilibhít forests and lie between the old west bank of the Sarda and the Katna núla.

The forests are composed principally of sál coppice poles with very little pure grass in them, but large stretches of "*chándar*," or plains of sál scrub about 4 feet high, take the place of the grass plains trans-Sarda.

All the forests are resumed grants, having been in the possession of grantees for many years. The grantees cut most of the large timber and sold it for building purposes or for charcoal and fuel. The poles are much superior to those in the Pilibhít forests most of the grants having been reserved about 10 or 14 years ago. What these forests principally require are rest and protection. We cut nothing at present except dead wood for sale for buildings and fuel. The privileged villagers obtain free grants of the unreserved wood for building purposes, dead wood for fuel, grass for their thatches; they are also allowed grazing at reduced terms. We get a little money also from outsiders for grazing and from the lease of spontaneous products which would otherwise go to waste. We have opened the forests by roads, wells and buildings for establishments, and we have a portion closed for the improvement of the forests. Proposals have lately been sent, through the Commissioner of Sitapur, to increase this area to about one-third of the forest area.

The Bhira forests, being a long way from the Kheri forests (trans-Sarda), but contiguous to the Pilibhít Division, are managed by the officer in charge of Pilibhít; they are an independent charge with a separate office.

(c) *Kheri Division, trans-Sarda*—The Kheri forests (trans-Sarda), about 263 square miles, form the most important division in the Oudh Circle; they lie in a pretty compact mass on the proper left of the Chowka or Sarda.

They contain about 150 square miles of sál forest composed of mature trees, with plenty of trees of inferior ages ready to take the place of the mature ones when the latter are removed by felling or natural decay; the rest of the forests are composed of khair and sissu in patches with large stretches of grass.

The sál forests lie between the Mohan river, which is the Nepal boundary, and the old left high bank of the Sarda on high ground. Most of the khair and sissu forests are situated along the Soheli river, which flows in one of the latest north-western channels of the Sarda; they are thus in what was formerly the old bed of the Sarda, between the left old high bank and the present river.

The ground occupied by sál forest is a good deal intersected by Tháru villages and grass plains which are somewhat lower than the sál forest. The cultivation is principally rice, and the upper grass lands are often some inches under water; to this fact and the annual firing of the grass may be assigned the reason why they are not covered with tree growth. The best grazing grounds are, however, in the low ground not occupied by khair and sissu. The sissu here is large, but very unsound, owing to the constant fires; new sissu is coming up in damp places on silt deposits near the river.

It is only in Kheri (trans-Sarda), where the reproduction is good, that we dare cut our mature sál in any quantities, and for the last 23 years we have been cutting out about 2,500 picked mature sál trees annually; these are cut, barked, carted, and floated to the Bahrámghát market, where the timber is cut into scantlings for indents for the Public Works Department and the public generally.

In the past two years we have utilized about 50,000 inferior (that is, crooked and unsound) mature trees for metre-gauge sleepers, felling the trees departmentally and cutting, carting, rafting, and training the sleepers by the same agency to the Railway Companies and the State Railway Department.

The forests are well divided by roads, and merchants can stay in the forests owing to the water of good wells, so that every dead tree and windfall that is worth removing is removed by purchasers.

We sell a little of the miscellaneous woods green, but the forests are so far from the market that only really good timber pays to be removed; but it was their distance from good water communication that was the salvation of these forests. Before 1870 the timber, except from the eastern extremity, was carted *viâ* Puranpur and Pilibhít to Bareilly, or to some of the streams falling into the Ganges, down which it was floated to Cawnpore, so that it would not pay to cart anything but the soundest and straightest timber. In 1870 I had the Soheli river, then full of snags, cleared, and with continued annual clearings the river is navigable and has been in constant use for the past fourteen years. The timber is now floated down the Soheli in the rains to Shitabaghát, where it waits till the water in the large rivers has subsided; it is then floated down the Korialla and Gogra to Bahrámghát, from which place it can be despatched to many places in the North-Western Provinces and Oudh by rail.

The sissu, being unsound, is not of much use; the khair is cut down by khairáhas and made on the spot into catechu.

There are some small khair and miscellaneous forests outside the sál forests on the Mohán, and on the Korialla river near its junction with the Mohán.

About one-fourth of these forests, say 60 square miles of sál, is closed against grazing, fires, and shooting, the latter during the fire conservancy season.

(d) *Bahraich Division.*—The Bahraich forests (about 257 square miles) are very straggling, the most westerly being about 80 miles in a straight line from the most easterly. They are divided into two natural charges of about equal extent:

the "Motipur range" lying to the west of the Nanpara-Nipalganj road ; the "Bhinga range" lying to the east of it.

The forests of the Motipur range (say 137 square miles) are about half sál and half sissu, khair, miscellaneous forests, and grass.

The low forests (about 67 square miles)—that is, the grass, khair, sissu, and miscellaneous—all lie in what were formerly the beds of the Korialla (and its branch the Girwa) and the Chota Sarju or Babai.

The sál forests are in two detached portions, generally known as the Damár forest (about 60 square miles), including the Nisháṅgárah and Motipur forests, and the Chakia forest (about 10 square miles).

All the good sissu having been removed by the Fatehgarh Gun Carriage Agency, there remains little but khair and grazing, as owing to the grazing and the river having settled into a pretty constant bed, there is no natural reproduction of sissu.

The sál forests, owing to the vicinity of good water communication, had all the best mature trees removed before the forests were made over to the Forest Department and there are very few left. The Damár forests are bounded on the north-east by Nepal, where large forests still exists, but which are gradually being cleared for cultivation. The boundary on the north-west and west is the left old high bank of the Korialla, that at the east is the high bank of the Chota Sarju or Babái.

The Damár forests principally consist of poles 50 or 60 feet high and one foot in diameter. They will be splendid forests hereafter, but they have not grown high enough yet to thin out, and the principal source of revenue is from the dead poles and poles of inferior kinds, with a few mature and dead trees which ar e removed by purchasers.

The Chakia forest (about 10 square miles), the fringe of a large forest in Nepal, is composed principally of sál poles of a size between those of Bhira and the Damár. The good mature timber had entirely been removed in former times down the Chota Sarju ; the forest is on its left bank.

About half the Damár forests are protected against grazing, fires, and shooting in the fire conservancy season.

Proposals are about to be made to close part of Chakia. This forest originally extended down to Nánpára, but has been destroyed for cultivation

The Bhinga range (about 120 square miles) is composed of three principal forests, "Charda," Bhinga," and "Sohelwa."

The Charda forest, which lies on the right bank of the Rápti (about 10 square miles), is composed principally of coppice sál poles about the size of those in Bhira. Most of it once was obtained (under a misconception) by the Mahárája of Balrámpur, who had possession of it for six years and cut it over freely. Only dead sál poles and green miscellaneous poles are now removed by purchasers and privileged villagers. Thinning cannot well take place till the trees are older and better drawn up ; about one-third of it is protected from grazing and the whole from fires.

The Bhinga forest (about 60 square miles) lies on the high ground on the left bank of the Rapti, and is bounded on the east and south-east by cultivation, generally low rice land, which is situated between it and the Sohelwa submontane forest.

Owing to its vicinity to a good rafting river, the Rápti, the best of the mature sál timber was removed before this forest came into the possession of the Forest Department.

The Bhinga forest has a fair crop of mature sál timber in it, not very sound, however, but on account of the grazing and the trampling of cattle there is no reproduction of sál, and for this reason we dare not cut much timber, as there would be no chance of reproduction of sál if we were to do so.

Any undergrowth there is is of ebony, karaunda thorns, rohani bushes, and other inferior species, the seedlings of which can live where those of sál cannot; there is little (if any) grass in the open forests, and what little there is is either trampled over or grazed down.

I have now demarcated off about half the forest into two large blocks, allowing the outside fringe for the villagers' privileges, and the proposals will be brought forward to have these blocks closed gradually for reproduction.

I may here remark that when we leave the vicinity of the large rivers, the Sárda and the Koriálla, we leave the real grazing-grounds: so that to the east of the Nánpára-Nepalganj road the people have to graze their cattle in the tree forest, to the great detriment of the forest.

Revenue has been chiefly obtained from the sale of dead mature sál trees, green hollow trees for boats, grazing dues, and mahua.

The Sohelwa submontane forests (about 50 square miles) are in the north-east corner of the Bahraich district, and are bounded on the north by a cut line at the foot of the Dundwa mountain range, on the south by cultivation and the forests of the Balrámpur estate, on the west by Nepal, and on the east by the forests of the Gonda Division. The western portion (about three-fifths of the above), called "Gabapur," consists of sál; the eastern portion (two-fifths of the above), called "Sonpathri," consists of dhao, miscellaneous trees, and thorns The nála beds in both forests contain khair, grass and a few sissu trees.

There are some mature sál trees in the forest of Gabápur, but there is not a good supply of middle-aged trees; in some parts saplings and poles are coming on well, and with protection it is expected that this forest will much improve.

In Sonpathri I hope we shall get a market for dhao when the new railway (Bengal and North-West) gets into working order.

The principal revenue is from dead and dying sál, grazing, catechu, and miscellaneous timber.

(e) *Gonda Division*—The forests of the Gonda Division are composed of two separate forests, the main forests (about 126 square miles), being the continuation of the Sohelwa forests of Bahraich, and the Nawabganj forests (about 17 square miles) situated on the Atraula road, on the line of railway between Mankápur and the Gogra ferry station apposite Fyzabad.

The main forests are bounded on the north and south in the same way as the Sohelwa forests: three quarters of them on the west are composed of dhao and miscellaneous trees: the eastern quarter is sál.

There is a good deal of mature dhao that can be removed when a market can be got for it. The sál is similar to that of Sohelwa, but the mature trees are worse, all the sound trees having been removed before 1861: there is, however, a very good crop of seedlings and poles coming on owing to the protection afforded for the past 23 years. There are but few middle-aged trees to take the place of the mature trees

The soil is very dry, lying on a slope from the foot of the hills down to the cultivation; at the foot of the hills the water in the nálas in the dry weather is lost in the pebbles and does not appear in the forests (except in stagnant pools), but reappears in springs when the nálas get out to cultivation. The trampling and browsing of cattle do much damage. The only portion closed at present is part of the sál forest in the east.

The Nawábganj forest is far from the main forests and consists of former grants which have been resumed by Government after the grantees had removed all large trees and poles and had left only poor and bad coppice-shoots. The coppice poles where a grant was resumed some 14 years ago are similar to those in Bhira, but in those lately resumed like those of Pilibhít.

The sources of the revenue of the Gonda Division are from grazing, dead mature sál trees and poles, green miscellaneous timber, catechu, mahua, baib-grass, and other minor produce.

(f) *Gorakhpur Division.*—The forests of the Gorakhpur Division (about 157 square miles) are principally composed of sál poles.

The forests originally stretched from the Nepal frontier along the rivers Rohin and Pias to the town of Gorakhpur and even further to the south-east; the Government forests are still much mixed up with private sál forests of considerable extent which are not very steadily cleared for cultivation. I mention the fact of Government forests being mixed up with other forests as in the Gazetteer, North-Western Provinces, Volume, VI., "Gorakhpur," page 288, a very incorrect notion of the forests has been given, they having been compared to "islands in a sea of cultivation which runs up into little bays and creeks." Mr. Swinton's map of the forests (Mr. Swinton's Settlement Manual) gives a much better idea of them. The idea of islands was probably taken from a map in which the Government forests are represented alone and coloured green, all the rest being blank; such a map was annexed to Mr. Amery's working plan of these forests about the year 1873.

Forty-two square miles of grass lands have been lately made over to the Forest Department. With the exception of Domákhand, which lies in the old bed of the great Gandak river, the other portions of grass lands are either mixed up with Government sál forests or are adjacent to them.

Roughly speaking, 102 square miles may be considered as sál and 55 grass.

The forests of Nagwa and Sonari contain the largest sál trees; but these, before the Forest Department was formed, were tapped for resin, ruining the chance of the trees becoming mature timber trees. These trees we are gradually removing where their place can be taken by younger growth, which has not been tapped and which has a fair chance of becoming valuable timber. Dead sál poles and green poles of arseyna and other inferior kinds are removed by purchasers; and in the Tilkonia and Ramgarh forests (nearest Gorakhpur) for the last few years we have been thinning out the inferior sál poles, leaving the best to grow to maturity. Some of these standards which have been left will in time become large timber trees. With the large area of grass there will now be considerable grazing.

(8) *Oudh Circle.*—It will be seen from the above that, with the exception of Kheri (trans-Sarda), the Forest Department had to take over either ruined, ill-treated, or over-worked forests. We are only taking somewhat less than the annual yield of timber from one-fourth of the forest area, leaving about three-fourths to have rest, and making up revenue from dead and fallen sál, green inferior timber, grazing, and minor produce which would otherwise be wasted.

This, I think, should be remembered where the forest revenue is considered Besides this, we have to give grazing at extremely low rates, and in seven-eighths of the forests we are still further taxed by having to give forest produce to the inhabitants of an area as large as, if not larger than, the forests themselves.

(9) The following table gives a rough idea of the forests and what they contain:—

Rough estimate of species of growth in the forests of the Oudh Circle.

Division.	Forests.	Tree forests.						Grazing grounds.				Total square miles.	Remarks.
		Sál.	Square miles.	Sissu and khair.	Square miles.	Dhao and miscellaneous.	Square miles.	Bad grazing (scrub).	Square miles.	Good grazing (grass.)	Square miles.		
Pilibhít ...	Whole division,	Very inferior coppice poles,	80	...	...	...	...	Sál scrub ...	50	In low lands ...	7	137	
Bhira (sub-division.	Whole sub-division.	Fair coppice poles ...	98	Khair ...	2	Miscellaneous ...	2	Ditto ...	55	...	7	164	
Kheri (trans-Sarda).	Whole division,	Good sál of all ages mixed up with mature, old hollow, and crooked trees.	150	Unsound sissu, some young, and khair.	20	Miscellaneous ...	10	Thorns ...	3	Openings in sál forests and in low ground.	80	263	
Bahraich ...	MOTIPUR RANGE. Low forests...	...	...	Good khair, bad sissu.	17	...	...	...	...	In low lands ...	50	67	Low forests.
	Damár ...	Very good poles ... / Inferior and old decayed trees	40 / 6	...	...	Dhao and miscellaneous.	4	Chattaina and bel,	10	...	...	60	Damár.
	Chakia ...	Good poles	6	...	...	...	...	Ditto ...	3	In low land ...	1	10	Chakia.
	BHINGA RANGE. Charda ...	Fair coppice poles ...	6	...	...	...	...	Chattaina and karaunda.	3	Ditto ...	1	10	Charda.
	Bhinga ...	Mature trees, unsound, few younger trees, no seedlings.	35	...	...	...	...	Karaunda and rohini.	20	At edges and openings.	5	60	Bhinga.
	Sohelwa West,	Some mature trees, few middle-aged; good poles coming on.	20	Khair in ravines,	1	...	...	Chattaina and bel,	9	...	...	30	Sohelwa West, Gabapur.
	Ditto East ...	...	...	Ditto ...	1	Dhao and miscellaneous.	12	Ditto ...	7	...	...	20	Sohelwa East, Sonpathri.
		Total ...	113	...	19	...	16	...	52	...	57	257	
Gonda ...	Main forest ...	Old hollow trees, few middle-aged; good poles coming on and seedlings.	30	Khair in ravines, where there is a little sissu.	4	...	61	Karaunda and chattaina,	40	In nála beds ...	2	137	Main forest.
	Nawabganj ...	Fair coppice poles ... / Inferior coppice poles ...	6 / 7	... / ...	... / ...	... / ...	... / ...	... / ...	... / ...	... / In low lands ...	... / 4	... / 17	Nawabganj.
		Total ...	43	...	4	...	61	...	40		6	154	
Gorakhpur ...	Whole division.	Good-sál poles, damaged middle-aged trees.	50	...	...	...	...	...	...		...	...	
		Fair sál poles ... / Inferior sál poles ...	26 / 26	... / ...	... / ...	... / ...	... / ...	... / ...	... / ...	In low lands ...	... / 55	... / 157	
		Total ...	102	...	...	...	...	...	...		55	157	
		GRAND TOTAL ...	586	...	45	...	89	...	200		212	1,132	

CHAPTER I.

AREA AND BOUNDARIES.

7. *Area of the circle.*—This at the commencement of the year was given as 1,090 square miles, which must now be corrected in—

Gorakhpur by	+	26,827 acres.
Bhira by	—	82 "
Total	+	26,745 "

(= 41·79 or say) 42 square miles, making the total area 1,132 square miles. These figures are, however, liable to revision.

8. *Change of area in divisions.*—(*a*) In Pilibhít the area remains nominally the same; but it is a question, if the recommendation of the Pilibhít Forest Settlement Officer be carried out, *viz.*, to make over the largest portion of the forest to the villagers of pargana Puranpur for their sole benefit, whether such forest should be borne on the area of reserved forests. (*b*) In Bhira the lands exchanged with Mr. Hearsey for the Hardoi grants have been incorporated in the forest reserve. The Hardoi grants contained 4,288 acres and the land acquired 4,206 acres: so that the difference of 82 acres must be deducted from the area of the circle at the commencement of the year. The Hardoi grants were dhák scrub and grass and far away from the main forests. The grants obtained are principally covered with sál poles and either adjoin or form part of the main sál forest. (*c*.) In Khori (trans-Sarda) I believe the Rája of Khairigarh has again lost his suit against Government for lands, which he claims as village lands. The appeal, I believe, now rests with the Privy Council. The 15 square miles of forests on the Katna river still remain ungazetted as reserved forest. (*d*) I had arranged to meet Mr. Ferrar, the Deputy Commissioner of Bahraich, regarding the proposed exchange with Sirdar Hira Singh, but unfortunately at that time Mr. Ferrar was appointed to the North-Western Provinces and left Oudh. There is no particular hurry in making the final arrangements, as Sirdar Hira Singh has plenty of waste land to cultivate before he comes up to the forest border. The question is somewhat complicated by the fact that some of the lands required by him have not been correctly delineated in the Oudh Revenue Survey map, the Bahraich Settlement Officer having made some changes since the map was published. This has special reference to the villages of Baguliha and Kathautia. (*e*) There are certain lands at the disposal of Government in the vicinity of the Nawabganj forest of Gonda (Yákub Bankat and Ashrafábád), but no order has yet been received whether they are to be made over to the Forest Department or not. (*f*) In Gorakhpur the whole of the grass lands (with deductions*) were made over to the Forest Department. In para. 7 of last year's report I stated that only 11,358 acres were to be made over (with deductions), and that 19,284 remained with the Collector; but the notification, No. 893 of 26th October, 1883 included the whole (with deductions.)

The Collector recommended the 11,358 to be made over to the Forest Department as reserved forests, as they were intimately mixed up with the forests. The Domákhand forests were separated from the forests formerly classed as reserved, but a large part of the 19,284 acres adjoined the old reserved forests; these grass lands the Collector recommended to be gazetted as "unreserved" (a term now obsolete in these provinces): they would have had to be gazetted as "protected forests." This, as I explained to the Collector, would have caused many difficulties, and he agreed that they should all be gazetted for reservation as reserved forests, which was accordingly done.

The revenue survey has entered the Gorakhpur district, and if Government is going to reserve any of the grants which are covered with sál trees which can equitably be resumed, it would be a good thing if an officer† was specially deputed to see what lands can be so resumed this next cold weather, as it would be better to have such

* Certain lands that were handed over to cultivators.

† It is possible that Mr. Nicholson's services could be spared when he has completed the demarcation.

lands surveyed in the reserved forest at once than to be added afterwards; some of the smaller Government sál forests are surrounded by sál forests held by persons in fee simple or on a cultivating lease, where there is little, if any, cultivation and plenty of timber-cutting. If these small forests were isolated, their protection from fires and theft would be comparatively easy; but surrounded as they are by other private forests, fire conservancy is rendered much more difficult and expensive and thefts are much more difficult of detection. As stated before, the Gazetteer of Gorakhpur gives a very incorrect notion of these forests in saying that they are like "islands in a sea of cultivation."

9. *Circle boundaries.*—The progress made in demarcation and ditching forest boundaries is shown below:—

Division.	Miles demarcated.	Miles new ditching.	Miles broad boundary cleared.	Number of posts erected.	Miles Nepal boundary cleared.
	Miles	M f.	M. f.	Miles.	Miles.
Pilibhít	...	1 7	...	...	...
Bhira	...	19 4	...	...	...
Kheri (trans-Sarda) ...	...	...	...	...	12
Bahraich	...	...	...	519	22
Gonda	...	...	1 6	...	38
Gorakhpur	161	...	...	...	...
	161	21 3	1 6	519	72

The following statement shows the boundaries of the circle with the different kinds, and other divisional detail:—

Division.	Demarcated by posts or marks only.	Dighbeled.	Ditched.	Cut cleared line.	Natural boundary.	*Nepal boundaries.* Demarcated by posts only.	*Nepal boundaries.* Cut cleared line.	*Nepal boundaries.* Natural boundary.	Total.
	M. f	M. f.	M. f.	M. f.	M. f.	M. f.	M. f.	M. f.	M. f.
Pilibhít ...	12 3	23 4	45 6	34 6	21 4	...	...	...	137 7
Bhira ...	...	74 6	71 4	...	19 5	...	...	...	165 7
Kheri (trans-Sarda),	...	93 5	24 1	...	9 4	...	1 6	8 2	295 2
			82 2	...	26 0	...	11 6	38 0	
Bahraich ...	...	...	350 1	7 0	42 3	1 3	57 4	...	458 3
Gonda ...	18 1	...	88 4	27 7	22 5	...	8 0	...	214 6
				5 3	14 2				
Gorakhpur ...	55 4	...	...	95 4	95 4	...	...	...	286 4
	126 0	191 7	662 2	170 4	251 3	1 3	109 0	46 2	1,558 5

10. *Divisional boundaries.*—(*a*) Pilibhít; The 12 miles 3 furlongs demarcated by posts are the boundaries of village grounds in the low lands. The *dighbéled* boundary will be gradually replaced by a ditch or cut line. Not much progress was made during this year, the money being required for more profitable works. The natural boundary is principally the Chuka nála, also the Sarda river and Málá swamp. (*b*) Bhira: About the usual amount of ditching was done, *viz.*, 19½ miles. The natural boundaries are the Ul and Katna nálas. (*c*) Kheri (trans-Sarda): The *dighbéled* boundary is along the Thárú villages, the boundaries of which the Rája of Khairigarh is still

disputing. The natural boundaries are the Soheli river and jhíls. (*d*) In Bahraich 519 posts were erected. The natural boundaries are the Koriálla river and the beds of jhíls and nálas. (*e*) In Gonda, 18½ miles demarcated by pillars are in the Nepálganj forests, but the masonry pillars are so near that ditching need not be carried on when more important work can be done. One mile 6 furlongs of cut line were made along the Manypur grant boundary, as the people gave a great deal of trouble with cattle-trespass: they pretended not to know the boundary, which is now well defined. Five miles 1 furlong of old ditching were repaired. (*f*) In Gorakhpur Mr. Nicholson demarcated 161 miles of boundary. Mr. Campbell has been desired to follow up the work energetically, to get the whole boundary as demarcated laid down on the ground.

The length of boundaries of other divisions have been obtained by going over the boundary line on the one-inch map with compasses measuring ⅛th of an inch each time. In Gorakhpur I have measured the boundaries to be done next year in a similar manner, *viz.*, 55½ miles, and added the length demarcated by Mr. Nicholson, *viz.*, 70 miles in 1882-83 and 161 miles in 1883-84. The total 286½ miles I have divided into three equal portions of "boundaries by posts," "cut lines," "natural boundaries," that is, the beds of the streams, and I expect this estimate will not be far out.

The divisional boundaries are 1,558⅝ miles in length, of which 1,403⅝ adjoin cultivation or forest lands in British territory and 1,55⅝ adjoin Nepal.

11. *Nepál boundary.*—In Kheri 12 miles of double width (that is 15′ × 2) were cleared: about 22 in Bahraich and 38 in Gonda =70 miles at the foot of the Dundwa range. The money was supplied by the Deputy Commissioners from Imperial funds. The natural boundaries in Kheri are the Pira nála and the Mohán river. The parts demarcated only by posts are two small portions on the north-east of the Bhinga forests; to get these portions ditched the Nepálese authorities will have to be consulted.

CHAPTER II.

SURVEYS, WORKING PLANS, AND ANNUAL PLANS OF OPERATIONS.

12. *Valuation surveys; circle.*—The usual measurements of trees to ascertain the rate of growth of sál were made in Pilibhít, Bhira, Kheri (trans-Sarda) and Bahraich. The figures will be taken up when a full period of five years has expired and the average obtained: these will give useful data for the preparation of working plans. At the suggestion of the Inspector-General of Forests, I sent to Professor Nördlinger of Tübingen, in Germany, some sections of sál and sissu trees of which the age was known exactly or approximately. This gentleman is a specialist in the structure of timber growth, and I hope more valuable results will follow than followed the sending of specimens of forest soil to the Nancy Forest School for analysis.

13. *Working plans; circle.*—The only division in which there is anything like a regular working plan is in Kheri (trans-Sarda). The usual 2,500 trees were felled, the operations taking place south-west of the road from Sonáripur to the fort Ghori Pádshah, as otherwise they would have got mixed up with the sleeper operations. I have forwarded proposals to have an enumeration of the standing trees in the forests of Kheri (trans-Sarda), as we have been working some 23 years now, and it would be as well for us to know what amount of timber now remains. The usual systematic thinning took place in Gorakhpur.

14. *Annual plan of operations; circle.*—These show the works proposed, in addition to fellings, and comprise works of improvement; these were sent by divisional officers through district officers to the Conservator, who forwarded them to Government through Commissioners; they have been as a rule carried out.

An abstract of working plans is annexed and will be found in appendix A. of this report.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

(1).—ESTABLISHMENTS.

15. The charges during the year were as below :—

Charges.	Officer in charge.	Remarks.
Oudh Circle ..	Captain Wood, Conservator,	Whole year.
Pilibhit Division ...	Mr. Ponsonby, Deputy Conservator.	Three months' privilege leave, July, August, September ; Mr Allan officiating
Bhira (Sub-division) ...	Ditto ditto ...	Ditto ditto
Kheri (trans Sarda), two Sub-divisions	Mr Allan, Deputy Conservator, assisted by Mr Pinder, Officiating Assistant Conservator, and by Mr. Battie, Officiating Assistant Conservator, and by Messrs Hearle and Hobart-Hampden dusing the sawing of sleepers.	Working season ; in recess officiating as above, when Mr. Battie held charge of the office. Mr. Pinder from 19th May to 19th June and from 9th November to end of year. Mr. Battie from end of June to end of year.
Bahraich, two Sub-divisions,	Mr Battie, Officiating Assistant Conservator.	1st April to 24th June.
	Mr Pinder, ditto ...	Mr. Pinder from 24th June to 12th July (from 13th July in charge of Gorakhpur and Gonda offices).
	Mr. Dansey, Deputy Conservator.	Mr. Dansey from 12th July to end of year.
Gonda Division ...	Mr Robsch, Officiating Assistant Conservator.	Forest leave from 6th August to 2nd October, 1883, (Mr Pinder in charge of office during his absence).
Gorakhpur Division ...	Mr Campbell, Assistant Conservator.	Whole working season Mr Pinder in charge of the office when Mr. Campbell was on deputation to the Central Circle, in charge of the Ránikhet and Kumaun Divisions.
Bahramghat Division ...	Babu Kanhya Lal, Sub Assistant Conservator	Whole year.

Mr. Ponsonby took privilege leave from 29th June to 1st October, 1883, Mr. Allan officiating for him and still carrying on the real work of the Kheri Division. Mr. Pinder returned from sick leave on the 19th May, 1883, and, not being entitled to privilege leave, had to take 22 days' furlough in the working season for urgent private affairs. Mr. Battie was at work the whole year. Besides Messrs Pinder and Battie, the services of Messrs. Hearle and Hobart-Hampden were granted from the School Circle for the cold weather for sleeper operations, on the completion of which in the forests they returned to Dehra. Mr. Dansey returned from furlough on the 12th July, 1883, and remained in charge of the Bahraich Division for the rest of the year. Mr. Robsch had suffered from fever and was allowed to go on leave for nearly two months. Mr. Campbell was at work all the year, carrying on his own work as well as he could in Gorakhpur, besides having other charges in the Central Circle. Babu Kanhaya Lal had no respite from work, nor had the Conservator

16. *Dehra School.*—Ranger Raghunath Pathak attended the School and obtained the ranger's certificate. Unfortunately he was away during Mr. Campbell's absence from the Gorakhpur Division, so that this division was without a controlling officer or ranger, to the detriment of the work of the division. Officiating Forester Parmeswari Din, the only other man eligible to attend the School, could not attend on account of illness, but is now there. Government has sanctioned the entertainment of two young men, who will be selected early in the cold weather, with a view to their being sent to Dehra, there being at present no English-speaking ranger or forester fit for the ranger's class or young forester eligible for the new forester's (or vernacular) class.

17. *Present establishment.*—No alterations have been made in the old permanent forest and office establishment, which is the same as sanctioned by the Government of India in its No. 791F., dated 17th July, 1875, nine years ago, since which time many changes have been made. Directly a copy of the scale sanctioned for the Central Circle has been received, proposals for a revised establishment will be sent up for the sanction of Government. The old establishment, which is not suited for present requirements, is aided by a temporary establishment.

(2)—General Protection and Breaches of Forest Law.

18. *General protection.*—The area protected from fires has also been protected as a rule from grazing; but I find that in gazetting the areas in which shooting and hunting are prohibited (which are the same as the fire-protected areas), I have not applied for permission for these forests to be closed against grazing and against the entrance of the public generally (except on the recognized roads and paths which run through them); this will be remedied next year. Grazing is forbidden in the whole forest by clause (*d*, section 25 of the Forest Act; but by the rules published in Notification No. 301 of 28th February, 1880, under section 75 of the Act, the forest officers can notify, under rule 2, when actions under section 25 are not forbidden. The same notification also empowers the Conservator, under section 24 of the Act, with the previous sanction of the Commissioner of the division, to stop roads in reserved forests, subject to the provision of that section. I propose gazetting the closed forests, with the sanction of Government, obtained through Commissioners, and declaring that these forests are closed against grazing for the whole year, against hunting and shooting from a certain day to the setting in of the rains, and against the entrance of the public into the forests (except by specified roads) for the same period. Rule 7 of Notification No. 303 of 28th February, 1880, gives the public the right of hunting, shooting, and fishing, except in closed forests, and consequently the entrance of the public. In some forests where damage might be caused to very young growth by the entrance of persons in pursuit of game it may be desirable to close the forests against all entrance of the public for the whole year till the young growth is sufficiently strong not to suffer damage by much moving about by parties on elephants or attended by crowds of beaters.

19. *Breaches of forest law.*—The results of prosecutions for breaches of forest law are as below:—

Division.	Prosecutions.		Convictions.		Acquittals		Pending.
	Old cases	New cases.	Cases.	Persons.	Cases.	Persons	
Pilibhit	...	7	4	12	2	8	1
Bhira Sub-division	...	...	...	...	1	2	...
Kheri (trans-Sarda)	...	7	5	11	...	...	2
Lohrámghat	...	...	...	...	...	...	...
Bahraich	1	27	24	61	4	9	...
Gonda	1	11	8	20	4	15	...
Gorakhpur	...	6	4	7	...	...	2
1883-84 ...	2	59	45	111	11	34	5
1882-83 ...	4	63	55	107	10	28	2

Of the 59 new cases, 5 were for damaging the forest by fire, 35 for stealing forest produce, 13 for illicit grazing, and 6 for minor offences.

20. *Compounding offences.*—There were 23 cases—7 in Kheri (trans-Sarda), 2 in Gonda, and 14 in Gorakhpur. In para. 6 of the Local Government's review of last year's report attention was called to the fewness of cases. The system had only lately been started, and it must be remembered, I think, that in Oudh (proper) the villagers within about three miles of the forests are allowed produce free, so that there is not so much chance of such offences as in other circles, where the people are

not so largely provided for. In Pilibhít the people can do much as they like, and the greatest number of cases are in Gorakhpur, where there are no privileged villages. Of the 23 offences 10 were for petty theft, 11 illicit grazing, and 2 minor offences.

(3)—Forest Fires.

21. *Fire conservancy; circle.*—The year was very unfavourable for fire conservancy the autumnal rains were light; there were no good Christmas rains, and none of the showers from January to March that we pad in 1883; besides this, there were furious west winds at the end of March and commencement of April, when the most disastrous fires occurred. At this very time the leaves had just fallen from the sál trees and were dry and whole; there had been no time for them to get wet with dew or broken, so that they were in a most inflammable condition and in the most favourable state to be carried by the wind.

The following statement shows the area attempted and protected and cost in the past and former years :—

Divisions	Area attempted	Area protected	Cost.		
	Acres	Acres	Rs	a	p.
Pilibhít	20,888	7,852	1,924	14	9
Bhira Sub-division	15,930	15,850	1,915	1	10
Kheri (trans Sarda)	42,130	21,530	3,714	0	6
Bahraich	36 679	36,679	1,230	8	2
Gorakhpur	75,540	65,970	1,687	6	5
1883-84 ...	188,867	147,681	10,471	15	8
1882 83 ...	184,064	182,189	9,012	4	7

The area attempted to be protected was 188,867 acres, of that protected 147,681, costing Rs. 10,471-15-8; this is 78¼ per cent. successful.

22. *Fire conservancy, divisional.* (*a*)—In Pilibhít there were four fires early in the season, that is, before the end of December: the first (50 acres) from the village lands of Nagphan Rasuia; the second (400 acres, principally *chándar*) from the village of Pura Sirkari; the third (about 200 acres, chiefly *chándar*) from the open forest opposite Puraina Dipnagar; the fourth (about 150 acres *chándar*) and 80 acres tree forest from the same place, all by the negligence of villagers. But the most disastrous fire took place on the 6th April, when a strong west wind was blowing and conveyed the fire from the Tarái forests across the broad cleared Mundiaghát road; Mr. Ponsonby was on the spot, but, owing to the carelessness of some subordinates who have since been dismissed, he did not get early intimation: the fire had then had got beyond control. The area principally consisted of open *chándars* of grass and stunted sál, but the fire got into the densest part of the Kali Lar block and there did much damage. (*b*) In Bhira about 80 acres were burnt accidentally in firing the Marha plain; this was at the end of January. A fire trace had been made beforehand and all was going well in the evening, when the fire came to a projection in which were some trees under which the grass could not in the former time be well burnt; a sudden eddy sprang up and the grass not having been burnt clear and the communication with the forest cut off, the fire ran in, but the damage was chiefly caused to a grass nála running paralel to the plain. (*c*) In Kheri (trans-Sarda) there were two large fires: one in the commencement of April, when a hot storm from the west was raging: this commenced, unfortunately, at the north-west of the Kusambha home block, so that the inflammable matter was all before it. It is supposed to have been started by the carelessness of some carters who were carting out the selection felling. The wind was too strong for anything to stop it, and 25 miles were run over by the flames in a few hours. The second fire of about 8 square miles happened on the 16th May, 1884, near the village of Phulwaria in the Dudua home block, when a strong east wind was blowing. This was to the north-east of the forests: two shots had been heard

that morning in the forests, probably Thárus shooting, and it is possible that the fire may have arisen from lighted wads, but the cause of the fire could not be traced. The village of Phulwaria is enclosed by forest, and though the forest to the east is open to the villagers, they are discontented at not being able to do just as they please wherever they please. It is to be noted, notwith standing the many hundred sawyers there were in the forest, no fires originated with them: they might have got their sleepers burnt. The carters of selection fellings can see the logs they are to get out easier and carting is easier in burnt forest. The Thárus had the chance of their cattle getting new grass from the burnt parts, but their cattle were rigidly excluded from the burnt area. (d) Bahraich has been very successful, but the Nishángárah closed block, the principal block, is well situated and has neither villages nor grazing near it: it however had a narrow escape from fire from without, from the villagers firing an open forest which had not been burnt. Mr. Dansey, however, had taken excellent precautions in clearing and widening the roads and fire-paths. All the rest of the open forests except Bhinga (where there is little if anything to burn) was burnt. (e) I have not brought on the statement the area protected in Gonda—attempted 98,258, protected 90,804, at the cost of Rs. 374-8-0—because this area will not hereafter be all protected. Some small fires got into the Nawábganj forest, probably owing to villagers' carelessness in burning the grass to collect the mahua flower from trees in village lands near the forest, and one fire was evidently lighted to clear a breadth of ground for cattle to go to water, but the fire fortunately was against the wind and was easily put out. I have ordered a broader strip to be cleared, so as to give the people no excuse for the future. (f) In Gorakhpur the fire conservancy has not been so successful as usual, though in the north, owing to the Forest Department having possession of the grass lands adjoining the tree forests, the protection by outside grass burning was done much better. Three hundred acres were, however, burnt in Dudhai by the carelessness of some graziers of goats; these men were punished. In East Lehra a fire was caused by graziers who could not be traced. In West Lehra the fire was probably caused by incendiaries, but eye-witnesses to the setting fire could not be obtained (and men about to fire forest are generally careful to see no one is watching), so the suspected men got off without punishment. In this case, directly the fire was seen the watchers ran to the spot and saw the men above mentioned running away. The bringing home to the offender of the crime of forest arson is most difficult. The fire in the Banki forest came from neighbouring forests, where some boys had fired the ground to collect mahua flowers. Fire went through a strip of the Rámgarh forest, having come in from a village forest on the west and leapt the broad cleared roads. This was when a hot, violent storm from the west was blowing and burning leaves were carried long distances. Where the roads were in the direction of the wind the fire was guided part of the way and was kept from spreading north and south, but the fire leapt the 50-feet cleared roads and probably hundreds of yards of cleared space would not have insured safety; the fire, after going through the sál tree forest, swept over the open land in which sissu had been planted in 1877-80, crossed the Tára nála, went through the Seth's forest of mature sál trees, where there were many leaves, but no grass, and burnt some crops and stacks in cultivation to the east of it. A small portion of the Sakhwi sissu plantation was also burnt, most probably by a grazier. A strong east wind was blowing at the time. The fire was lighted at the most eastern extremity. The sissu having in most instances been burnt off flush with the ground, in a few days new shoots had come up which will be watched with interest. Young trees much damaged by fire were cut over with the axe flush with the ground to obtain a perfect re-growth.

(4)—Grazing and Fencing.

23. *Grazing.*—From the short description of the forests in the introduction of this report it will have been seen what the area where legitimate grazing can be carried on is. Beyond these limits every head of cattle is doing damage to the extent of many times the dues that are paid. In districts where there are no forests cattle live quite as well as those in villages near the forests. It appears to me that the people

keep too many poor wretched cattle and not enough good strong ones; a few good ones could be kept in good condition and bring forth healthy offspring, where double the number would be half starved and produce puny, weak offspring, which die off in the first unhealthy season. The native will never reduce the number of his own accord, or as long as the grazing dues are merely nominal.

24. *Fencing.*—I have, in accordance with orders contained in para. 8 of Resolution No. 947, dated 20th November, 1883, marked off in the Bhinga forests two large blocks containing about half the area of the forest to be closed for the purpose of reproduction. This is on the lines proposed by Dr. Brandis in his Suggestions of 1881, and the plan will be sent up to Government for approval. The cost of fencing would be prohibitive and I have made roads round the blocks; but if the district officer does not help the protection of the public property, the blocks will have to be ditched at a great expense both in the original outlay and in constant repairing, and an expensive establishment will have to be kept up.

(5)—NATURAL REPRODUCTION.

25. *Of the circle.*—In the blocks closed against fire and grazing the reproduction is doing well as a rule; quicker, of course, where the soil is light and sandy, and slower where the soil is clayey and has been subject to cattle-trampling for scores and scores of years; it can hardly be expected that nature, if only left alone, can *quickly* remedy the effects of many years of bad treatment. I am afraid that we shall have to leave much to time, but we are now experimenting to see what effect the artificial loosening of the soil where it is stiff will have; this must necessarily be very expensive, but we must find out if the expense is justified by the results. Leaving improvements to nature only we are spending a most valuable commodity, *viz.*, time, though not expending cash, and we shall probably have to gain time by planting out at first.

There is much to be studied in the reproduction of sál (our principal tree), though a great deal depends on the quantity of seed shed and the time of seeding, the amount of rainfall in the year, the drainage, the thickness of the grass, the amount of shade and cover; fires and many other causes have to be taken into consideration.

I see that in para. 100 of the Central Provinces Report for 1882-83 Captain Losack wrote that with protection "the species (sál) is extending into the open plains." Mr. Thompson, the Officiating Conservator, rather doubts this, but in Kheri it is most decidedly doing so *where the open grass plains are not swamped.* In my time—that is, in the last 20 years—I have seen *bhojis* (that is, detached woods of sál) formed in the open plain from a few old trees, besides fringes of new sál outside forests and encroaching on the plains. I have seen, since fires have been checked, sál crossing open grass bays in the forest and thus bringing the outside edges (in time) into contact. This is a question of much importance in regard to the thinning of mature trees. It is my opinion, founded on experience, that, though the seed may germinate, sál seedlings will not grow well under the cover of large sál trees, though they will under the cover of many other trees which lose their leaves at a time different to those of sál. Seedlings grow well in grass alone, without any tree cover or shade; in a warm dry sandy soil they will stand more shade than in a cold wet soil, and I think it must be carefully noted in poor cold damp soils, where there is a coating of grass, whether the cover and shade of large trees is not actually injurious to reproduction. In such places it appears to me that the entrance of light and air is indispensable to the growth of the seedlings in the first year or two of their existence.

26. *Divisional.*—(*a*) Pilibhít: the soil is improving in the Mahofe closed block (sál) and the tree growth in the natural belts is far superior to that where the growth is not protected. The effect of protection on the *chándars* has not had a fair chance yet, owing to the fires and to the short time the block has been closed. (*b*) In

Bhita the (sál) tree growth is much superior to the growth in the open forests. The ground is, in the natural belts, pretty well covered with pole growth, but most of it is coppice; in small open places the young growth is coming on and filling up blanks. (c) In Kheri (trans-Sarda), in the Dudua closed block (sál), the undergrowth of sál is coming on well in most places. In the Kusambha closed block (sál) we have hardly had time to see the effect, but I have noticed that where fellings have allowed the entrance of light the undergrowth is coming on well in places suited for reproduction. In the Dudua lower closed block (sissu), in the portion last closed, sissu is coming up thickly, and in different states of growth, from 1 to 3 years or more. (d) In Bahraich there has been a mistake made in the small Angarghát block (khair and miscellaneous): it has not been kept clear of fires and grazing as was thought. Mr. Dansey will be desired to close a smaller block in the northern portion, as at present the road to Rámnagar passes through it and its protection is rendered difficult; besides, it is very near some of the best grazing-grounds and the cattle can with difficulty be kept out of it. The Nishángárah closed block (sál) is doing well and the soil is greatly improving; the undergrowth of sál and asna is coming on well and dháo in the eastern portion. The Salárpur closed block (bambu) is also doing well. In Charda (sál), though protected from fire, the reproduction is scanty; the soil is deprived of its chance of forming vegetable mould and many of the coppice-shoots are dying. In Bhinga (sál), though protected from fire, there is no reproduction, except in the small hedged compartments where there is no grazing, and here and there outside near the Kain nala, where the soil is sandy (silt deposit); but even here the reproduction is slow and the new growth at present does not appear really healthy. (e) In Gonda, in the three westerly sections (dháo), though there is much grazing the reproduction of dháo is improving from stopping fires. Mr. Rebsch considers that there was formerly a good deal of sál in these forests which was worked out in former times; but owing to excessive grazing, fires, and the hardness of the soil, there has been no reproduction of sál, the forest only admitting species that will stand more drought to exist: in the easterly section (Chandanpur) protected (sál), the new growth of sál is coming on well. In the Nawábganj forests, where protected from fire and grazing, the coppice growth is generally improving.

(6)—Artificial Reproduction.

27. *Of the circle.*—The abstract of plantations is given below:—

Area on 1st April, 1883	Area on 1st April, 1884	+ or —
972	972	*Nil.*

The area remains the same; all of it is sissu, with the exception of some four acres of teak and bambu. The fire referred to in para. 22 of this report cleared off 250 acres in Ramgarh. This was but poor plantation, and it was a question whether it would even come to anything. The sissu could not compete with the grass. Two hundred and fifty acres have been added of good sissu plantation in Sakhwi, where there is every chance of success.

The cost during the year has been Rs. 4,337.

28. *Divisional.*—(a) The 19 acres in Bahraich should, I think, be taken out of the area, as they should have more properly come under cultural operations and experiments. None of the Bahraich planting can be termed successful; the sissu trees did well at first, but cannot make headway in the grass or in the extra dry or very shady places in which they were planted. (b) In Gorakhpur the plantations of Sonari and Sakhwi are doing well: some of of the Sakhwi trees I measured over 30 feet high, and not yet three years old from seed, transplanted 2¾ years when ¼ year old. Those trees are all that could be wished for and reflect great credit on Mr. Campbell, who has taken every care to obtain success.

29. *Cultural operations; Divisional.*—(*a*) In Pilibhít these were principally in nurseries made for planting trees in places near the rest-houses and roads. (*b*) In Bhira a few trees were planted out near the rest-houses and roads. The sissu on the banks of 1881-82 are doing fairly. The 4 tallest seedlings are from 6′ to 6′ 9″, strong and healthy. The sowings of 1882-83 did not succeed, there not having been sufficient rain. (*c*) In Kheri the banks on the low ground did not succeed and were abandoned. On the high ground near Sarota the sissu, on the banks, recovered from the treatment received from the animals; the growth will be watched, but this year the grass that had been killed down by the banks has now grown as strong as ever, if not stronger, and the trees were enveloped in it, but it is hoped that next year they will have topped the grass, some being now 4 and 5 feet high. The bamboo seedlings planted out on the Dudua Bazar Road are doing well, some being 20 feet high. The sissu planted out in the Dudua-Khairigarh Road are doing fairly well. Of 4,724 trees planted out in 1881-82, 971 were killed by floods; these were replaced, and in 1883-84 there were only 238 vacancies, which have been filled up; they were overtopped by the grass during the rains: the grass here is very high. (*d*) In Bahraich Mr. Dansey is making some experiments in loosening the soil in the Bhinga forests with a view to the reproduction of sál, but I am afraid not much can be expected with the soil in the poor state that it is, deprived of humús. (*e*) In Gonda Mr. Robsch has ascertained the germinating powers of sál seed from coppice-shoots.

30. *Old plantations.*—The old plantations of Messrs. Amery and Grant and Shaikh-Mohi-ud-din were thinned out, and this operation will have to be continued.

(7)—Cutting of Creepers.

31. *Circle.*—Not much has been done during the year, both time and money being required for the extensive sleeper operations that were being carried on.

32. *Divisional.*—(*a*) In Pilibhít, in the experimental coppice-cuttings that took place, it was found that the operations were greatly hindered by the creepers, which prevented the clear felling of the trees, either in strips, or in common thinning, the trees being tied together at the tops. To prevent this in coming years the creepers in the rest of the Kali Lar block, which will be felled over shortly, were cut out. (*b*) In Bhira Mr. Ponsonby is getting a market for the creepers at a nominal cost for their removal. The bark of the morain (*Bauhinia vahalii*) gives a good fibre, which the Lucknow paper mills are desirous of obtaining in quantity, as it is said to give even a better fibre for paper-making than *baib* (or *bankas*.)

(8)—Experiments and Exotic Trees.

33. *Circle.*—Owing to the heavy-timber transactions there was not much time available for experiments. Some strip-cutting of sál was carried on in Pilibíht; a good deal has been learnt in strip-cutting in the sál coppice forests of the Kapurthala estate in Bahraich, where a certain amount of small timber for building poles and fuel is required. Not much could be done in developing the system for obtaining perfect roots for sissu or other trees that are to be transplanted. In cultivated lands there is very little difficulty in getting good results from transplanting; the difficulty lies in transplanting trees in grass lands where grass has already obtained the mastery. As a rule the grass lands will be kept for grazing purposes, but there will always be blanks and grass lands inside fire-protected areas which it will be desirable to plant up, both as a means of security from fire (by killing down the grass), and to give the greatest return from land set apart for the production of timber, and in which grazing cannot be permitted.

34. *Divisional.*—(*a*) In Pilibhít a portion of the Kali Lar block, the richest in the division, was cut over in 16½ strips, 3 times 16½ or 49½ belts being left between, the produce would have about paid expenses had it not been that the fire referred to in para. 22 of this report destroyed the stacks of fuel which were left to dry before being carted. The young growth coming up is already very good. On the opposite side the road in the Kali Lar block to that in which the strip felling was conducted, thinnings of

the worst trees in alternate blocks were carried on, with a view of obtaining the best and straightest stems for an intermediate crop, but the products were destroyed by the fire above mentioned. The effects of frost in the thinned out blocks will have to be carefully watched, and the superiority of strip-cutting in the ¼th of a compartment, or the removal of the one-fourth of the growth by taking half the produce of the alternate blocks in two periods (comparatively near each other) be determined. (*b*) In Bahraich in the Ikonah forests of Kapurthala, where almost all the trees are bad, strip-cutting is the proper system to be followed, and Mr. Townsend, the officer in charge of the Mahárája's forests, under my directions, has this year supplied the market in the estate from fellings from roads and strips. I hope soon to be able to forward a detailed report, for the information of Government and of the Mahárája of Kapurthala, of the work that has been done, the result up to the present, and the method I would recommend should be followed in the future. The work has grown to be a very much more detailed one than was at first expected and has taken up a good deal of my time; but on the other hand much experience has been gained in the treatment of sal coppice, because in the Government forests we have very large areas, and the wants of the people can be supplied from the miscellaneous poles and dead timber; whereas in the Kapurthala forests, where the area is small, there is a large surrounding population, and the forests being nearly pure sál, the people have to be supplied with sál timber, and the best practical means of supplying the people, not only with the least possible injury to the forests, but for their future improvement, have to be carried out at the present time. In sál-coppicing, insects that eat over the terminal shoots are the principal difficulty at present. Either the damage may be more apparent than real in the older tree, as sál forms a new top very rapidly, and the growth now being obtained will probably do well enough for the purposes required, *viz.*, for building poles, and in the meantime it is hoped that seedlings now coming on will eventually grow into straight and sound timber trees, their tops being of slower growth and not so succulent as those of rapidly grown coppice-shoots. Experience has shown that the older coppice-shoots where the soil is in good order give seed that not only germinated but live; and Mr. Rebsch's experiments this year show that coppice of about 20 years old gives productive seed. (*c*) Gonda: in Nawabganj forest the Rámgarh compartment was obtained from a grantee in 1870 and has had 14 years' protection; the re-growth in hardly any place is more than 18 years old. Mr. Rebsch has experimented with the seed of some of the trees that seeded. He reports: "In Ramgarh the sál poles are seeding freely, and in some parts of the forest (chiefly towards Gaighát), I have noticed numbers of two and three years old seedlings and yearlings are very plentiful. As some doubt was lately thrown out about the productiveness of such young trees, I have just sown a quantity of seed at Ramgarh, and though it has only been in the soil about six days the young leaves are already visible, though germination began two days after the seed was put into soil." Connected with this subject I must notice the fact that this year the coppice forests retained their leaves much longer than the lofty tree forests did; this may affect the period of seeding and throw it later in coppice forests than in lofty forests, and consequently give a better chance of the seed falling in rainy instead of in dry weather. (*f*) In Gorakhpur, where the forests (sál) in the north are protected from fires and grazing, there being large grazing areas outside, reproduction is coming on well; and in Ramgarh also, which is well protected, the under-growth is doing well; but in forests where cattle can with difficulty be kept out, the soil is hard and the reproduction and growth bad and slow.

35. *Divisional.* (*Sissu*)—I have described the results of sowing sissu on banks in para. 28 of this report. With regard to transplanting it the more experience I obtain, the more I am convinced of the necessity of transplanting it with *perfect* roots when planting out is to be a commercial success, and the expenses of tending and watering reduced to the least possible cost. When we place a plant where it has to struggle with other species that are already in possession of the soil, we must not put in a weakly baby, a maimed or sickly invalid, but a perfect and strong individual, which can at once

adapt itself to the altered circumstances it is placed in with a little artificial aid at first or for a little time, and can afterwards not only take care of itself but obtain the mastery over the surrounding species. The trees referred to in last year's report as transplanted at Sakhwi (para. 49) with only two gharas of water at the time of transplanting and no artificial watering afterwards are doing fairly well, though they have had high grass to contend with.

36 *Exotic trees.*—The well in the garden at Dudua has been sunk and will be ready in the present year. The eucalyptus trees at Dudua are doing well, some carob are alive in Gonda and in Gorakhpur. *Broussonetia papyrifera* is coming on in Gorakhpur, but I do not expect any practical benefit will be obtained. I regret I could not get any mahogany seedlings or seed.

37. *District arboriculture.*—A full report will be probably submitted through the Agricultural Department for Gorakhpur, where the only district arboricultural operations are carried on. The mango graft garden was kept free of grass by planting crops, which gave a good return (Rs. 410-12-3); the mango trees are doing well and some peach and apricot trees have also been planted. The road-side trees on the Hatta and Kusumi road are doing remarkably well, and will not want further watering having fairly established themselves. About 20 miles of the Pipraich road has been planted on both sides with sissu trees 30 feet apart, these are doing well; sissu was planted on the recommendation of the Commissioner of Benares.

38. *Roads.*—There are now about 900 miles of road in the circle; most of the old roads were kept up in good order, the grass cut and bridges kept in repair. About 80 miles of new road were made, 6 miles 4 furlongs in Pilibhít and 17 miles 1 furlong in Bhira, to divide the forest into blocks and to facilitate transport; in Bahraich 29 miles 3 furlongs were made to mark off the proposed closed blocks in Bhinga and to open out communications in the forests at the foot of the Nepal hills; 11 miles 1 furlong were made in Gonda, in the Nawabganj forests, to open out the forests, facilitate communications and inspection, and to act as fire lines and about 2 miles to practically demarcate the forests from the land adjoining; the 16 miles in Gorakhpur were to facilitate work in the sissu plantation and to act as fire lines. The cost was Rs. 13,092.

A detailed statement is given in appendix B., an abstract of which is given below:—

	Pilibhít.		Bhira.		Kheri.		Bahraich.		Gonda.		Gorakhpur.		Total.	
	M	F.	M	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F
Main road, 100 feet wide ...	...	...	...	...	...	...	...	...	9	½	..	...	9	½
Roads 50 " ...	...	...	...	...	..	...	...	...	...	...	7	...	7	...
" 40 " ...	...	...	...	...	...	...	...	...	23	4	...	...	23	4
" 30 " ...	...	...	3	4	...	...	...		...	...	12	...	15	4
" 20 " 40′ ...	...	...	11	6	...	...	...	...	...	...	...	...	11	6
" 20 " ...	...	...	.	...	17	4	74	1	...	...	8	...	99	5
Cart road 15 " ...	106	3	83	...	194	3½	238	6	21	...	16	...	659	4½
" " 18 " ...	...	...	...	..	28	...	...	...	...	...	...	...	28	...
Path 10 " ...	...	...	...	...	..	...	...	6½	...	...	...	...	..	6½
" 8 " ...	2	6	18	6	..	...	..	...	...	...	..	...	21	4
Total ...	109	1	117	...	239	7½	313	5½	53	4½	43	...	*876	2½

The bridge of boats over the Sarda was kept up as long as possible, and was of the greatest use in our timber operations, as some 60,000 or 70,000 sleepers have passed over it in carting sleepers for Shájahánpur, from which place they were sent either up-rail to Bareilly, or down-rail to Cawnpore for the Cawnpore-Achneyra Railway. This means that nearly 1½ lakh of maunds of timber crossed it: this large amount of carriage of timber, I believe, somewhat interfered with the grain trade, which would otherwise have passed over the bridge and brought in more revenue.

* This does not include the roads on the Nepal frontier.

39. *Buildings circle.*—Very little now remains to be done to complete the system of rest-houses, except in Gonda and Gorakhpur.

An abstract statement of rest-houses in the Oudh Circle is herewith given :—

Description.	Pilibhít.	Bhira.	Kheri.	Bahrámghát	Bahraich.	Gonda	Gorakhpur.	Total
1st class double storied rest houses	1	2	5	...	1	1	...	10
Ditto single ditto ditto	...	...	1	2	5	...	...	8
2nd class double ditto ditto	...	.	4	..	...	...	...	4
Ditto single ditto ditto	...	...	...	...	...	...	7	7
3rd class double roof	7	6	...	...	...	...	1	14
Ditto single ditto	...	...	...	...	9	2	...	11
Total ...	8	8	10	2	15	3	8	54

Most of the buildings have cook-houses and out-houses for servants and subordinates attached to them.

A detailed statement of buildings will be found in appendix C.

The cost of new buildings and repairs was Rs. 9,009.

(*a*) In Bhira two new third class rest-houses were commenced and completed at Pulhanpur and Moraina. (*b*) In Kheri (trans-Sarda) the new 1st class double-storied rest-house for the Salukapur depôt was nearly completed, also a cook-room and store-room; the rest-houses have been kept in repair, and a two-roomed dispensary with tiled roof has been completed to replace the temporary grass shed. (*c*) In Bahraich the rest-houses were repaired and improved and the material collected for the first class rest-houses at Bankatwa and Gulra; these houses will be of great use when the Bhinga conservancy is taken in hand; the former is to the south and the latter to the north of the largest proposed block, and are in the open, so that there will be less chance of fever than there is now in the central spot, Ponsonbyganj, where the air is confined; they will also allow the divisional officer to superintend works earlier and later in the season. Owing to the railway taking up the local supply of labor not much could be done in building; the money was also required for more extended timber operations in Kheri. (*d*) In the same way not much was done in Gonda, the Chandanpur 1st class double-storied rest-house not being quite completed. (*e*) In Gorakhpur labor was also difficult to be obtained, but considerable improvements in rest-houses have been made: the Chaumukha 2nd class single-storied rest-house has been completed, also the Pakri (Gopikhand) one, both with the exception of inner fittings; a similar house has been commenced at Ramgarh on high open ground, with high plinth and tiled roof, to replace the mud house and thatched roof which was situated on the slope of the Tara nála, and which was very unhealthy in the rains and autumn. (*f*) In the Bahrámghát depôt two more tiled timber-sheds were completed for the better preservation of sawn scantlings.

40. *Wells* (*a*)—In Pilibhít two small wells of *pattis* (some 3 segments to a circle and about 3 inches thick) were made; also a 3 feet diameter masonry well commenced for the Kali Lar block. (*b*) In Bhira masonry wells were made at the new third class rest-houses, Pulhanpur and Moraina. (*c*) In Kheri (trans-Sarda) the following progress was made: of the five new wells commenced last year, one (Lokhiphanta) has been completed, the second cylinders of the others (Phutakua, Salukapur, No. 5 well, and Dudua "large") have been built and sunk; the third cylinder of the same has been built, but not yet sunk. (*d*) In Bahraich the two new wells in the Motipur range were not much advanced owing to Mr. Dansey's time being taken up in Bhinga; two new wells were commenced at the sites of the new rest-houses in the Bhinga range and are nearly completed. (*e*) In Gorakhpur the Chaumukha rest-house well was completed, that near the Pakri (Gopikhand) rest-house nearly so. Progress was made in making the arboricultural masonry wells, and in the Sakhwi plantation 4 semi-permanent wells (with wooden sides) were made for irrigating the plants.

Most of the wells of the circle were cleared out. The great utility of the wells was shown in this year's work in Khori, where thousands of sawyers and cartmen were scattered over a large area along 20 and 30 miles of road—in fact the work could not have been done as it was without the aid of these wells; and another fact of great importance was that, except in the commencement of the season, when a few men got fever (from chills most probably), there was hardly any sickness among the workmen, and this in forests that 30 years were considered deadly after February, and would be deadly still to the workmen from the large towns, unaccustomed, as the hill men are accustomed, to the water of nálas and jhíls.

41. *Rivers.*—The river Soheli was cleared of snags as usual. The mouth of the river is now some distance above the rest-house at Shitabaghát; in former years it was on the downstream side. There was great difficulty in rafting even sleepers in the Korialla from Ramnagar to Shitaba, owing to most of the water having in Nepal gone into the Girwi branch of this river, which flows past Kataniaghat in Bahraich. In Gorakhpur the Pias and Rohin were partially cleared of snags; these rivers will help to convey timber from the northern forests to Gorakhpur. There are tributaries of the Rapti, and under Notification No. 300 of 28th February, 1880, the Rapti and its tributaries were put under the Forest Department as far as waif timber is concerned, but up to the present the waif of all rivers in Gorakhpur is in the hands of the Collector. As the Forest Department is the department most interested in the keeping these rivers open for navigation and has to spend money in doing so, I think the revenue from waif timber should be made over to the Forest Department.

CHAPTER IV.

YIELD AND WORKING.

42. *Yield of the Circle.*—The yield and working is shown in the summary as follows in the form ordered by the Government in its para. 2 of Resolution No. 317, dated 27th March, 1883 :—

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary showing the total yield of timber during the year 1883-84.

	Selection fellings, i.e., fellings of mature trees						*Thinnings.*				*Clearances.*								Total.		Remarks.
	By Government agency.		By contractors.		Total		By Government agency		Total.		By Government agency.		By contractors		By villagers.		Total.				
	No.	C. ft	No.	C. ft.	No	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C ft.	No.	C. ft.	
Sál timber ..	2,537	130,638	...	...	2,537	130,638	...	...	...	...	...	...	...	...	...	...	...	...	2,537	130,638	Regular selection fellings 2,537 trees were felled, of these 37 turned out bad.
Sál ,, ..	33,671	1,113,258	1,877	64,179	35,548	1,177,437	7,845	23,869	7,845	23,869	107	2,911	69 147	180,777	2,034	1,153	71,288	184 841	114,681	1,386,147	
Asna ,, ..	4,337	273,554	1,038	54,033	5,375	327 587	15	45	15	45	...	...	16,804	28,128	...	...	16,804	28,128	22,194	355,760	
Sissu ,, ..	...	...	2	29	2	29	...	...	...	...	...	...	25	160	...	...	25	160	27	189	
Dhao ,, ..	...	...	...	...	...	...	...	...	...	...	163	163	14	14	...	...	177	177	177	177	
Mahua ,, ..	...	...	1	64	1	64	36	208	36	208	...	...	...	...	...	...	...	...	37	272	
Kusum ,, ..	...	...	13	452	13	452	...	...	...	...	2	16	21	117	...	...	23	133	36	565	
Jamun ,, ...	...	...	282	8,037	282	8,037	1	20	1	20	...	...	...	...	...	...	...	...	283	8,057	
Khair ,, ..	...	...	...	...	...	...	...	...	...	...	...	...	116	1,160	...	...	116	1,160	116	1, 60	
Tikoi (haldu) ...	...	...	31	1,320	31	1,320	...	...	...	...	...	...	72	720	...	...	72	720	103	2,040	
Asidh ...	...	...	13	452	13	452	...	...	...	...	...	...	...	...	...	...	...	...	13	452	
Bahera ..	...	...	1	33	1	33	...	...	...	...	...	...	...	...	...	...	...	...	1	33	
Sundri ...	...	...	4	137	4	137	...	...	...	...	...	...	...	...	...	...	...	...	4	137	
Miscellaneous ..	...	...	79	1,580	79	1,580	243,608	243,970	243,608	243,970	...	...	98,273	135,000	907,259	486,000	1,005,532	621,000	1,249,219	866,580	
Bambus ...	...	...	...	...	...	...	...	...	...	...	...	...	927	232	...	...	927	232	927	232	
Total, { 1883-84...	40,545	1,517,450	3 341	130,296	43,886	1,647,746	251,505	268 112	251,505	268,112	272	3 090	185,399	346,508	909,293	487,153	1,094,964	836,551	1,390,355	2,752,409	
Total, { 1882-83..	16,942	676,855	9,640	248,778	26,582	925,153	136,240	153,723	136,240	153,723	1,295	2,050	310,281	440,534	851,257	464,716	1,162,833	907,300	1,325,655	1,986,176	
Difference, { More,	23,603	840,595	..	...	17,304	722,593	115,265	114,389	115,265	114,389	...	1,040	...	...	58,036	22,437	...	...	64,700	766,233	
Difference, { Less,	...	...	6,299	118,482	...	...	...	...	...	...	1,023	...	124,882	94,226	...	...	67,869	70,749	...	...	
	Sleeper operations carried on vigorously.		Less timber removed by contractors				More thinnings in Gorakhpur and Pilibhít.				Less number of poles felled, but of larger dimensions.		Less timber poles, &c.; saplings removed by contractors.		More free produce given to privileged villagers.						

NOTE.—The villagers did no selection fellings or thinnings and the contractors did no thinnings.

(1)—DEPARTMENTAL OPERATIONS.

43. *Circle ; selection fellings of regular working plan and for sleeper and scantling operations.*—Besides the regular selection fellings in Kheri (sanctioned at 2,500 mature sál trees), in which 2,537 were felled (37 turning out not good enough to be sent to Bharámghát), a still larger number of trees than those felled in 1882-83 were felled for sleeper and other operations, over 4 lakhs of sleepers having been cut.

The sál sleepers were cut from trees that would not have come into our regular selection fellings ; the large-sized arsenc it is desirable to remove : 33,671 sál trees were felled and 4,337 arsena ; some logs, however, remain for conversion into sleepers in the present year.

44. *Divisional ; selection fellings and fellings for sleepers and other purposes* :—

(*a*) Kheri : regular selection fellings, 2,537, of which 37 were bad ; the 2,500 trees yielded 2,537 logs and 743 pieces, containing 130,638 cubic feet.

(*b*) Kheri : sleeper selection fellings 30,480 sál, nearly all converted into sleepers ; 4,259 asna, nearly all converted into sleepers.

(*c*) Bahraich : sleeper-selection fellings : 1,908 sál, all converted into sleepers.

(*d*) Gonda : timber for District Department Public Works and Railways : 1,283 sál detail, as per margin, mostly converted into scantlings.

50 logs sold.	
13 „ „ (hollow).	
18 poles.	
211 props and posts.	
272	
1,011 converted into scantlings.	
1,283	

45. *Sleeper operations.*—(*a*) In Kheri the sál trees cut extended over a large area, some 30 or 40 square miles. As a rule, crooked and hollow trees or trees that were deteriorating were cut. It would have been better if we had only cut over the places in which regular selection fellings had already taken place, so as to run less risk of felling trees that would hereafter have to be felled on the selection fellings, but the largeness of the work necessitated their being spread over the most convenient area, from 5 miles north of Dudua to the Bilrain rest-house, along the main road, so as to admit of cartage and rafting taking place both to the west to the south. Every precaution was taken not to cut trees that should hereafter come in the regular selection fellings, the controlling establishment having been strengthened by the services of Messrs. Hearle and Hobart-Hampden being given by the School Circle. The trees felled were in every instance (except in two or three cases where the men were punished) first marked by one of the following officers ; Messrs. Allan, Hearle, Hobart-Hampden, Pinder or Battie. Some of the trees yielded as many as 80 sleepers, some trees were too bad to yield one, the average was about 10 sleepers a tree : 347,384 sál sleepers (metre gauge) were obtained and 69,232 asna. (*b*) In Bahraich 21,418 sleepers were cut ; the trees yielded about 11 sleepers on an average ; the offcuts also found a market. (*c*) In Gorakhpur the operations were confined to bringing the sleepers out last year to market. (*d*) At Bahrámghát 34,645 sál sleepers were cut from material sent from Kheri.

The sleepers were supplied to the Rohilkhand and Kumaun Railway at Bareilly ; to the Bengal and North-Western Railway at Fyzabad and Piagpur ; to the Bareilly-Pilibhít State Railway at Bareilly, Pilibhít, and along the line (10,000 were obtained from the Central Circle and formed part of the contract) ; and to the Cawnpore-Achnera State Railway delivered at Cawnpore. There were some difficulties with the Chief Engineer of the first-named line, but all the other officers have been much pleased with the sleepers they have obtained. The work of transport is still in progress, and I hope before the end of 1884-85 to have all the sleepers sold and handed over.

46. *Thinnings.*—(*a*) In Pilibhít a commencement was made on a small scale ; the stuff cut was small and crooked and only useful for fuel, some 5,850 maunds.

(*b*) The details of the Gorakhpur thinnings is given in appendix II. to Form 58 : some 550 acres in Ramgarh and 250 acres in Tilkonia were lightly thinned to meet the demand for firewood for the new railways. The costs were Rs. 3,208 and receipts Rs. 26,212, and about Rs. 2,250 due ; this gives a profit of about Rs. 35 an acre,

Thinnings were also carried on in Bhari Baisí and West Lehra forests and bad trees removed for fuel. The result of the operations will be given in the report for 1884-85.

47. *Clearances.*—(*a*) In Bahraich 107 sál poles were cut and sent to Bahrámghát. (*b*) In Gonda 163 dhao trees were cut for cart-axles, 12 kusum.

48. *Outturn of timber and other produce cut and collected by Government agency.*—The following table shows the above, which is also given in the statement in para. 42 and is an abstract of form 59 :—

Particulars.	Description.	1882-83.		1883-84.	
		Number.	Cubic feet.	Number.	Cubic feet.
Selection fellings, crooked and bad trees, and clearances.	Sál logs	16,867	669,043	37,067	1,242,316
	Sissu „	98	2,416	...	...
	Asna „	120	5,247	4,259	272,608
	Dhao axles... ...	230	230	163	163
	Sál poles	326	1,081	125	2,929
	Koros	739	739	...	...
Clearances	Sál props and posts ...	...	...	211	211
	Miscellaneous poles ...	31	68	240	600
	Kusum timber ...	...	...	2	16
	Hollow trees ...	...	...	13	208
Hollow trees, 126, river ...	Canoes	126	...	127	..
	Sál sleepers ...	116,548	155,000	368 802	505,387
Conversion from selection and other fellings in the forests.	Asna „	...	...	69 232	98,079
	Sál scantlings ...	4,287	1,962	495	1,205
	Asna „	...	...	946	946
	Sál planks	...	...	3,210	5,494
	„ signal posts ...	...	...	23	512
	„ karris	...	...	33	63
	„ slabs or pieces ...	54,181	134,048	188,372	377,978
	„ pieces of scantlings.	...	...	326	500
	„ offcuts	9,413	18,826	20,077	20,077
	„ stumps... ...	...	...	440	440
Thinnings	Firewood, mds. ...	...	...	29,650	...
	Charcoal „	21	...	..	...
	Drift and confiscated timber	3,509	10,226	2,117	7,382
	Ditto charcoal mds. ...	45	...	45	...
	Total ... No. ...	206,105	999,986	696,280	2 531,984
	Total ... Mds. ...	66	...	29,695	...

49. *Bahramghát Saw Mills.*—A comparative statement of the work done by the saw mills during last and this year is given below :—

Year.	Value of work done at old rates.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1882-83	18,962	12,824	6,138
1883-84	17,790	10,347	7,443

The sawing charges were Rs. 12-8-7 against Rs. 14-9-4 per hundred cubic feet last year. This reduction of charges was due partly to the more economical working of mills, partly to the new boiler from Roorkee, which allowed a higher pressure of steam to be used, and partly to the fact that most of the sleepers were sawn by machinery.

50. *Bahrámghát Depôt.*—The balance of indents at the commencement of the year was 4,733 cubic feet ; 51,479 cubic feet of indents were received, making a total of 56,212 cubic feet. Of this 45,541 cubic feet were executed and supplied during the year ; 3,216 cubic feet were cancelled, leaving a balance to be completed of 7,455 cubic feet. Rejected timber and scantling, and offcuts were sold at the usual periodical auction sales.

51. *Depôt transactions.*—The depôt transactions as required by G. O. No. 317, dated 27th March, 1883, are given in appendix D. of this report.

52. *Stock.*—The abstract of form No. 65 given below shows the value of stock at the commencement and close of the year :—

Description.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.	
	Number or quantity	Value	Number or quantity.	Value.	In favor of the year.	Against the year.
		Rs.		Rs	Rs.	
Timber, c. ft	699,773	3,37,013	823,505	4,27,005	89,992	...
Firewood, mds.	66	7	850	102	95	...
Live stock, No ...	36	12,216	35	15,499	3,283	...
Dead stock, including buildings, furniture, canoes and boats } No.	35,302	1,93,301	34,305	2,11,997	18,696	
Total ..	...	5,42,537	..	6,54,603	1,12,066	...

53. *Explanation of stock.*—The timber stock has increased by Rs. 89,992. Some of the logs lying in the forests in the Khairigarh Sub-division, which were left last year, have been utilized in sawing up sleepers. The sleepers at Bahráinghát have been valued at Rs. 0-12-0—the same as the rest of scantlings, as there are a good many rejected sleepers on hand—but in the forest at Re. 1 a cubic foot.

There is an increase of Rs. 3,283 and Rs. 18,696 in live and dead stock, which is principally due to the purchase of two new elephants, a new boiler from Roorkee, and the transfer (on payment) of two portable plough engines from the Agricultural Department to the Forest Department.

(2)—Removal of Produce by Purchasers.

54. *Circle; mature trees.*—Some 3,341 trees were removed by purchasers; of these about half were sál, one-third asna, and the rest miscellaneous.

55. *Selling trees standing.*—Owing to the sleeper operations being carried on vigorously there was no time to experiment in selling trees standing in the forests. In the first place, it requires a vigilant watch over the contractors and the marking of trees by divisional officers personally. Moreover, in my opinion, it is not safe to do so at present, and as long as the demand for sleepers continues, I consider that the timber will be more economically utilized by departmental working.

56. *Divisional; mature trees.*—The form given below shows the divisional detail of the mature trees removed by contractors, being a detail of the 2nd column of statement under para. 42 :—

Description.	Kheri.		Bahraich.		Gonda.		Gorakhpur.		Total	
Sal ...	453	21,693	979	28,136	...	...	445	14,350	1,877	64,179
Asna ...	826	46,282	153	5,936	...	...	59	1,815	1,038	54,033
Sissu ..	2	29	...	...	...	...	...	...	2	29
Tikoi ..	...	...	31	1,320	...	...	...	...	31	1,320
Mahua ..	...	...	1	64	...	...	...	...	1	64
Kusum ..	...	...	13	432	...	...	...	...	13	432
Jaman ..	17	538	265	7,499	...	...	...	...	282	8,037
Asidh ..	...	...	13	452	...	...	...	...	13	452
Bahera ...	...	...	1	33	...	...	...	...	1	33
Sundri ..	...	...	4	137	...	...	...	...	4	137
Miscellaneous ..	...	...	...	...	...	...	79	1,580	79	1,580
Total, 1883-84...	1,298	68,542	1,460	44,109	...	...	583	17,745	3,341	30,296
Total, 1882-83...	1,411	66,536	2,406	61,088	985	18,484	4,836	1,02,670	9,640	248,778
	—113	+2,006	—946	—16,979	—985	—18,484	—4,253	—84,985	—6,299	—218,482

57. *Divisional; explanation*—(*a*) In Kheri 453 dry sál, 826 green asna, 2 sissu, and 17 jaman trees were cut and removed by purchasers. (*b*) Bahraich : of the 979 sál there were 101 green, the rest were dead trees; of the asna, 105 were green and 48 dead; 31 tikoi or haldu, 265 jaman, and a small number of miscellaneous trees were also sold. (*c*) In Gonda timber was removed departmentally in the year under review. (*d*) In Gorakhpur 445 *rálad* sál trees were felled by purchasers: these were chiefly from the Nagwa and Sonari forests; 59 asna and 79 miscellaneous trees were also removed by purchasers.

58. *Clearances: circle and divisional*—The table below gives divisional detail of timber and small poles and saplings removed by purchasers, and the totals for this and the past year :—

Description.	Pilibhit.		Bhirg.		Kheri		Bahraich.		Gonda.		Gorakhpur.		Total.	
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C ft.	No.	C. ft.	No.	C. ft.	No.	C. ft
Sál	16,534	8,267	...	...	528	5,582	20,587	20,593	11,940	5,970	19,558	140,365	69,147	180,777
Asna	...	...	...	...	...	...	9	9	3,690	7,380	13,005	20,739	16,804	28,128
Sissu	...	...	...	...	...	...	3	88	22	122	...	...	25	160
Dhao	...	...	...	...	...	...	...	...	14	14	...	...	14	14
Kusum	...	...	...	...	16	67	...	...	5	50	...	...	21	117
Tikoi	...	...	...	...	...	...	...	...	72	720	...	...	72	720
Khair	...	...	...	...	...	...	...	...	116	1,160	...	...	116	1,160
Miscellaneous	2,968	2,968	5,765	5,765	6,231	14,932	53,913	53,913	21,050	21,050	8,356	36,372	98,273	135,000
Bambus	...	...	...	...	...	...	927	232	...	...	...	...	...	...
Total ... 1883-84 ...	19,502	11,235	5,765	5,765	6,765	20,581	74,739	74,785	36,909	36,466	41,019	197,476	185,399	346,308
Total ... 1882-83 ...	10,872	4,736	3,485	2,994	193,338	194,000	23,209	40,213	29,919	22,277	49,458	176,314	310,281	441,534
	+8,630	+6,499	+2,280	+2,771	−186,575	−173,419	+51,530	+34,572	+6,990	+14,189	−8,439	+21,162	−124,882	−94,226

346,308 cubic feet of poles and saplings were removed by contractors ; this is but an estimate, as the small and thin saplings are sold to purchasers by cartloads, head-loads, &c., Of this quantity 180,777 cubic feet were sál, 28,128 asna, and the rest miscellaneous. The reserved timber was from line fellings or dry or decaying trees ; the miscellaneous trees were green saplings, for ridge poles, props, and posts for thatching purposes.

(3)—Free-Grants of Forest Produce.

59. *Produce given free to villagers.*—The detail of the free grants to villagers and others will be found in appendix E., which is given therein by cart-loads, head-loads, &c., but an estimate is given below :—

Bhira ...	...	...	...	56,467 trees	=	26,280 cubic feet.
Kheri ...	...	...	...	2,74,677 „	=	1,54 546 „
Bahraich	...	...	...	5,44,567 „	=	2,79,354 „
Gonda	...	...	...	20,691 „	=	11,750 „
Gorakhpur	...	...	...	1,728 „	=	2,444 „
Pilibhit	...	...	...	11,163 „	=	10,829 „
Total	1883-84		...	2,09,293 „	=	4,87,153 „
	1882-83		...	8,51,227 „	=	4,64,716 „
				+58,066 „	=	+22,437 „

These are used chiefly in making thatches for houses in the villages within three miles of the forest boundary. These are merely poles and saplings of inferior species. Of the 487,153 cubic feet 2,444 cubic feet of free gift of timber in Gorakhpur was made to the Collector of Gorakhpur for building a roadside bungalow at Bargadha and a bridge over the Tamar river. There are really no privileges in the Gorakhpur forests: these were the only items given to the Collector to help the Public Works Department.

In Bahraich there were 3 dry sál and 3 asna trees supplied gratis for the construction of a dispensary at Sujoli. There were 335 cubic feet in Pilibhit, 546 in Kheri, of sál wood ; all the rest was miscellaneous.

(4).—Summary of Produce removed from the Forest.

60. *Produce of the circle.*—The total yield of produce of all kinds is given in the following table :—

Summary showing the total yield of produce of all kinds for the year 1883-84.

Produce.	Total yield, 1882-83.		Total yield, 1883-84.		Difference. More.		Difference. Less.		Remarks.
	Quantity.	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	
		Rs.		Rs.		Rs.		Rs.	
Timber, c. ft. ...	9,25,153	3,82,163	16,47,746	5,49,249	7,22,599	1,67,086	...	...	More timber felled for sleeper operations.
Saplings ...	1,53,723	15,800	2,68,112	33,137	1,14,389	17,337	...	...	Thinning operations were carried on in Pilibhit as well as in Gorakhpur hence the increase.
Poles, &c., No. ...	1,162,833	1,41,597	10,94,964	1,86,870	...	...	67,869	4,727	Less poles and saplings removed by contractors
Bambus, scores ...	12	15	46	58	34	43	..	....	
Firewood, mds....	1,88,464	83,656	98,544	32,116	...	...	89,920	51,540	243,600 cubic feet of timber converted into firewood is included under saplings.
Charcoal „ ...	32,172	2,971	36,221	3,474	4,049	503	...	...	
Minor produce...	...	40,662	...	49,186	...	8,524	...	...	More revenue, owing to addition of grass lands in Gorakhpur.
Grazing dues ...	..	36,511	...	36,634	...	123	...	...	
Confiscated and drift timber, c. ft.	10,676	9,021	7,382	4,372	...	...	3,294	4,649	The quantity of timber collected by contractors in Bahraich has not been included in this, as the quantity was not known.
Total ...	...	7,12,396	...	8,45,096	...	1,32,700	...	...	

As the quantities are given differently, as feet, numbers, scores and maunds, an estimate in cubic feet is made as below and gives the following results :—

Timber ...	...	1,647,746	cubic feet
Saplings ..	...	268,112	"
Poles } Bamboos } ...	...	836,551	"
Firewood ...	...	98,544	"
Charcoal ...	...	144,864	"
Total ..	1883-84	2,985,837	"
	1882 83	2,303,428	"
Difference more		682,409	"

The explanation of deviations from the yield of last year is given in the column of remarks. The yield is roughly estimated at 5·8 cubic feet per acre on 800 square miles of tree forest, though it is only 3 80 cubic feet per acre for the whole area as shown in para. 64.

61. *Catechu.*—The number of trees cut for the manufacture of catechu has not been given in this statement, as the number or quantity was not correctly known. The revenue from catechu comes to about Rs 13,593, or about Rs. 5,000 less than last year, The falling off is principally in Kheri, though there has been an increase in Gonda. The royalty on the manufacture of catechu was enhanced from 9 to 12 annas per pot, but in Gonda more catechu was made. About 10,194 pots of catechu were in use; the pots hold about 3 gallons each. In Pegu, where the manufacture of catechu is carried on to a very large extent, the royalty is charged at Rs 20 a cauldron of 12 gallons, or Rs 5 for 3 gallons. I have written to the Pegu Conservator to ascertain the length of the season of manufacture (the same in my circle lasts three months). the outturn per cauldron (the process of manufacture may be more skilfully conducted there) and the price per maund of catechu on the spot, as, without these data being known, it cannot be ascertained whether we are charging too low a royalty. The fact of there being a falling off in revenue in Kheri seems to point out that the enhancement of the price has decreased the manufacture. The khairhas have to come long distances to Kheri they live in the Gonda district and thereabouts

62. *Concentrated essence of sál bark.*—I have sent some dried juice of sál bark to the Edinburgh Exhibition, with a view to ascertaining its value as a tanning material. I hope in time to get a large quantity of tannin if a remunerative market be obtained for it. The kherihas can make it by the same process that they make catechu; the difference being that for catechu the khair trees are wholly destroyed, the heart wood only being boiled down; for sal tannin what is now wasted, *viz*, the bark of the sál tree, is utilized.

63 *Increase in yield.*—The increase is chiefly owing to a demand for sleepers.

64. *Statistics per acre.*—The following tabular statement, as required by G. O. No 109, dated 22nd February, 1883, gives an estimate of yield per acre :—

Divisions.	Area in acres	Yield of timber in cubic feet.	Kind of timber	Yield of timber per acre in cubic feet.	Total receipts	Receipts per acre	Total expenditure.	Expenditure per acre.	Total surplus or deficit	Ratio of expenditure to receipts per cent	Surplus per acre.
					Rs		Rs				
Pilibhit ..	87,680	27,914	Sál and miscellaneous.	·32	9,618	·10	23,556	0 26	—13,938	244	...
Dhira sub-division	104,876	33,995	Ditto ditto .	·32	6,563	06	11 435	0 10	—4,872	174	...
Kheri (trans-Sarda).	168 820	1,683,841	Sál, asna, sissu, khair and miscellaneous.	1·00	309,197 317,116	3 72	362,213	2 15	+264,099	58	1·57
Bahraich ...	164 480	476,875	Ditto ditto ..	2 90	75 882	0 40	47,771	0 29	+28,111	63	0 17
Gonda ..	98,258	50,377	Sál, asna, sissu, dhao, khair and miscellaneous	0 51	20,124	2 04	14,678	0 15	+5,446	72	0 05
Gorakhpur ..	100,427	479,027	Sál, asna and miscellaneous	4 77	67,030	0 66	29,561	0 29	+37,478	44	0·37
1883-84 ...	724,049	2 752,409	...	3 80	805 538	1 11	489,914	0·06	+316,324	67	0 45
1882-83 ...	697,998	1,986,191		2 84	384 430	0·55	288,707	0 41	+95,723	75	·13
	+ 45	+766,298	..	+0·96	+421,108	·56	+200 507	—35	+220 601	—8	+·32

CHAPTER V.

FINANCIAL RESULTS.

65. *Financial results of this and past year.*—The financial results of this year as compared with those of last year are given below :—

Receipts.		Expenditure.		Surplus.	
1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3,84,430	8,05,538	2,88,707	4,89,214	95,723	3,16,324

66. *Reasons of the increase.*—The increase is principally due to the sale of sleepers obtained from unsound and crooked mature sál trees. With the exception of revenue from timber removed by purchasers (head II.) there is an increase in all other heads, and even under head II. there is only a decrease of Rs. 885, which is owing to the timber that would have been removed by purchasers having been used up for sleepers and scantlings. The railways in course of construction afforded us a good market not only for sleepers but for scantlings for station work.

67. *Circle receipts for this and past year.*—The receipts under the different budget heads are given in the following table :—

Year.	I.	II.	III.	IV.	V.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs
1882-83	2,01,959	1,72,447	3,901	...	6,123	3,84,430
1883-84	6,22,590	1,71,562	4,310	...	7,076	8,05,538

The excess is Rs. 4,21,108, of which about 4 lacs is owing to sale of sleepers.

As sleepers are not all sold in the year they are cut and expenditure in carriage is incurred in the following year, it is very difficult to state the exact financial results unless the work is steady, which it has not been ; but some idea may be formed by taking the ordinary expenditure and receipts from timber operations (which have been steady) and deducting them from those figures which include the sleeper operations. These I give below :—

Timber operations.

Year.	Receipts.	Expenditure	Surplus.
	Rs.	Rs.	Rs.
1880-81*	1,21,170	71,262	49,908
1881-82*	1,22,303	68,869	53,434
Two years	2,43,473	1,40,131	1,03,342
Average*	1,21,736	70,065	51,671
1882-83†	2,01,959	1,34,910	67,049
1883-84†	6,22,590	3,14,185	3,08,405
Two years	8,24,549	4,49,095	3,75,454
Average†	4,12,274	2,24,547	1,87,727

Thus in 1882-83, with 100,000 sleepers cut, the receipts were more, the expenditure more, and so the surplus was but little affected ; but in 1883-84, when the sleepers of 1882-83 came into the market as well as some of those of 1883-84, the figures were effected as below in 1883-84 :—

	Receipts.	Expenditure.	Surplus.
	Rs.	Rs.	Rs
With sleepers	6,22,590	3,14,185	3,08,405
Average without	1,21,736	70,065	51,671
	5,00,854	2,44,120	2,56,734

*Without sleeper operations. | †With sleeper operations.

and during the time of sleeper operations thus :—

	Receipts	Expenditure	Surplus.
	Rs	Rs.	Rs.
Two years with sleepers	8,24 549	4,49,095	3,75 454
Ditto without	2,43,473	1,40,131	1,03,342
Excess for sleepers	5 81,076	3,08 964	2,72,112
Estimate in 1883-84	4,18,924	1,91,036	2,27,888
	10,00,000	5 00,000	5,00,000

This on 500,000 sleepers gives Rs. 5,00,000 profit, or Re. 1 a sleeper.

Our selection fellings, 2,500 of the best and soundest trees, not one really bad, gives a surplus of about Rs. 50,000, or about Rs. 20 clear profit a tree. The sleepers, as I have shown before, average 10 sleepers a tree, giving Rs. 10 clear profit a tree. This, counting the number of bad trees from which not a single sleeper could be got, is, I think, not unsatisfactory.

68. *Divisional receipts and expenditure*—The divisional receipts and expenditure for the two past years are given below :—

Division.	*Receipts*		Increase or decrease during the year.	*Expenditure.*		Increase or decrease during the year.
	1882-83.	1883-84.		1882-83	1883-84	
	Rs	Rs.	Rs	Rs.	Rs	Rs.
Direction	..	...	...	20 578	22 680	+ 2 102
Pilibhit	8,308	9,618	+ 1 310	25 167	21 096	— 4,171
Kheri, including Bhira and Bábramghat.	2,42,696	6,32,875	+ 3,90,179	1,83,376	3,63,568	+ 1,80,192
Bahraich ...	58,845	75,882	+ 17,037	21,129	42,731	+ 21,602
Gonda	19,655	20,124	+ 469	11,136	12,158	+ 1,022
Gorakhpur	54,926	67,039	12,113	27,322	27,041	— 181
Total ...	3 84 430	8 05,538	+ 4,21,108	2,86,707	4,89,214	+ 2,00,507

69. *Explanation of differences*—(*a*) In Direction the increase in expenditure is owing to the promotion of Conservator and also of office establishment. (*b*) In Pilibhit the increase in revenue is owing to the sale of fuel obtained from thinning operations, and the decrease in expenditure is owing to less expenditure under A Ib, A VIIId, and A VIIIe. As the whole allotment for improvement fellings could not be utilized, no plantation work was started and no new fire paths were made for want of supervision, the ranger being sick (*c*), (*d*), and (*e*), Kheri, Bhira, and Bábramghát - the increase in revenue is principally from sale of sleepers, and the increased expenditure is owing to the sleeper operations being conducted on a large scale and carriage of them being pressed forward. (*f*) Bahraich : the increase is owing to sale of sleepers, and the increase in expenditure is also on account of the same. (*g*) Gonda : the increase in revenue is owing to sale of scantlings to the District Engineer and the railway officials. Some money since received could not be credited in the year. The increased expenditure is owing to departmental timber and sawing operations being carried on experimentally, and as a first start. (*h*) Gorakhpur . the increase in revenue is owing to sale of timber and fuel to railway contractors. There is a slight decrease in expenditure, which is partly due to Mr Campbell's pay for two months while in the Central Circle not having been charged to the Gorakhpur Division.

70. *Circle; expenditure "A." for this and past year.*—The sums under "A.," Conservancy and works are detailed as below :—

"A."

Year.	I. Timber and other produce removed from forests by Government agency.	II. Timber and other produce removed from forests by consumers or purchasers	III. Confiscated, drift and waif wood.	IV. Revenue from forests not managed by Government agency	V. Rent of leased forests, etc.	VI. Live and dead stock.	VII. Communications and buildings.	VIII. Demarcation, improvement and extension of forests.	IX. Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1882-83 ...	1,34,910	8,730	339	...	...	8,953	31,538	19,789	1,043	2,05 302
1883-84 ...	3,14,185	9,012	224	...	...	20,885	23,444	21,518	1,218	3,90,486
	+1,79,275	+282	—115	...	...	+11,932	—8,094	+1,729	+175	+1,85,184

Causes of difference.—A.I., extended sleeper operations; A.VI., purchase of two plough engines, also of 2 elephants; A.VII., less spent on buildings, the money being required for other purposes and labour being scarce.

71. *Circle; Expenditure "B." for this and past year.*

Year.	I Salaries.	II. Travelling allowances.	III. Contingencies.	Total
	Rs.	Rs.	Rs.	Rs.
1882-83	66,743	12,196	4,466	83,405
1883-84	79,732	14,321	4,675	98,728
	+12,989	+2,125	+209	+15,323

Causes of difference.—B. I. and II., owing to the promotion of senior officers and pay and travelling allowances of Messrs. Hearle and Hobart-Hampden for 4 months on deputation to the Kkeri Division; also to Messrs Dansey and Pinder, who were on leave last year, drawing pay and travelling allowances this year.

72. *Cash profits of the year.*—The cash profits of the year were as below .—

	Rs.
Receipts	8,05,538
Expenditure	4,89,214
Cash surplus	3,16,324

73. *Circle account of receipts and the three great heads of expenditure.*—The financial results under the three main heads of expenditure are given below :—

Particulars.	Amount 1882-83.	Amount 1883-84.
	Rs.	Rs.
Receipts from timber and other produce removed from forests by Government agency.	2,02,863	6,23,174
Deduct expenditure on account of above, including share of establishment (I)	1,59,127	3,49,934
Leaving a profit on timber operations of	43,736	2,73,240
Other receipts were	1,81,567	1,82,364
The cost of revenue collections with share of establishments comes to (II.) ...	59,414	63,499
Leaving a surplus of	1,22,154	1,18,865
And a total clear profit from all sources of	1,65,889	3,92,105
From which must be deducted cost of works of conservancy and improvement with share of establishments (III)	70,166	75,781
Leaving a cash surplus of	95,723	3,16,324

74. *Divisional account of receipts under the three great heads of expenditure.* (*a*) *Pilibhit.*—The receipts from forest produce are given below:—Rs. 1,015 received from sale of firewood obtained from thinnings are more than what were received last year The revenue from dead and inferior trees, grass and minor produce, is very nearly the same as last year:—

	Rs.
Timber	1,355
Firewood, including fuel from thinnings	3,310
Charcoal	2,690
Grazing dues	1,180
Minor produce	657
Drift timber	52
Miscellaneous	174
Total. ...	9,618

The revenue is more by Rs 1,310 than it was last year. There is a deficit of Rs. 13,935 against Rs. 16,859 of last year, the whole of Mr. Ponsonby's salary being charged to this division.

The financial figures stand as below:—

	Rs.
Receipts from timber removed by departmental agency	1,015
* Expenses on thinning operations ...	1,593
Giving a deficit of	579
Other receipts were	8,603
Cost of revenue collection with share of establishment was	11,805
Deficit	3,202
	578
	3,780
In addition to which must be charged cost of works of formation, improvement, and protection of forests, with share of establishments ...	10,158
Giving a total deficit of	13,938

* Including wells and experiments.

	Rs.
A II.	2,943
½ VI	351
½ VII.	567
½ IX	75
½ B.	6,609
14/27 Direction charges	1,260
	11,805
½ A. VI.	350
½ VII ...	567
A VIII. . ..	1,298
½ IX.	74
½ B.	6,609
14/27 Direction charges ...	10,158

(*b*) *Phira Sub-division.*—The revenue was derived from the following sources:—

	Rs.
Timber	1,246
Firewood	494
Grazing dues	2,878
Grass	1,586
Minor produce	312
Miscellaneous	97
Total	6,563

There is an increase of Rs. 479 compared with last year. It is principally in timber.

The financial figures are given in the following table:—

	Rs.
A. II	1,843
½ A. A. VI.	98
½ A. VII	1,546
½ A. IX	102
½ B	543
14/27 Direction charges ...	5,392

	Rs.
Receipts	6,563
Cost of revenue collections with share of establishments was	5,392
Leaving a surplus of	1,171

		Rs.
½A. VI.	... ...	97
½A VII.	... .	1,544
A. VIII.	... ...	2,495
½A. IX.	... ...	102
½ B.	... ...	543
1½/27 Direction charges	...	1,260
Total	...	6,043

	Rs.
Against which must be charged cost of formation, improvement, and protection of forests with share of establishment ...	6,043
Giving a deficit of	4,872

The value of this forest is increasing, and when the railway is opened in these parts the forests will yield a good revenue from the sale of poles and minor forest produce.

	Rs.
(c) *Kheri (trans-Sarda).*—The revenue from timber removed by Government agency was	2,73,772
Other receipts were	35,425
Total ...	3,09,197

This is an increase of Rs. 2,11,293 over the figures of last year, owing to the sale of sleepers.

The following table shows the financial results of the Kheri Division and its Depôt, Bahramghât :—

		Rs.
A I.	... ..	2,36,986
½A VI	... ...	1,992
½A VII.	... ...	3,786
½A. IX.	... ...	180
½ B	... ...	9,424
2/27 Direction charges	...	1,680
		2,54,048

		Rs.
Whole A. and B, Bahramghât charges	... ...	65,239
		2,520
3/27 Direction charges	...	67,759
		3,21,807

		Rs.
A. II.	... ...	1,534
A III	... ...	106
½A VI.	... ...	1,993
½A VII.	... ...	3,787
½A IX.	... ...	181
½ B.	... ...	9,423
2/27 Direction charges	...	1,680
		18,764

		Rs.
½A. XVI.	... ...	1,992
½A VII.	... ...	3,786
A. VIII	... ...	4,580
½A IX	... ...	180
½A. B	... ..	9,424
2/27 Direction charges	...	1,680
		21,642

	Rs.
Receipts from timber removed by Government agency, Kheri	2,73,772
Ditto Bahramghât ...	5,90,887
Kheri timber expenses and whole of Bahramghât	3,21,807
Leaving a profit on timber operations of	2,69,080
Other receipts were	35,425
Cost of revenue collections with share of establishment was	18,764
Leaving a profit of	16,661
Giving a total clear profit of ...	2,85,741
From which must be deducted the cost of works of improvement and conservancy with share of establisments ...	21,642
Leaving a net surplus of ...	2,64,099
If we take the Bhira Sub-division of Kheri into account, the surplus is reduced by Rs. 4,872	2,59,227

(d) *Bahraich Division.*—The receipts were from the following sources :—

					Rs.
Sleepers	...	...	...	...	27,150
Other timber	...	...	...	.	16,495
Firewood	...	..	...	...	286
Charcoal	...	...	...	..	587
Bamboos	...	...		...	58
Grazing dues	...	...	...	...	10,239
Grass	...	...	...	...	487
Minor produce	...	...	...	..	18,069
Drift timber	...	...	...	...	2,060
Miscellaneous	...	...	...	...	450
			Total	...	75,882

The following table shows the financial figures :—

		Rs.
A I 2	...	37,150
A. II.	...	1,693
½ VI	...	326
½ VII.	...	1,869
½ IX	...	71
½ B.	...	6,781
3/27 Direction charges	...	2,520
		18,280
½ A VI.	...	327
½ A VII.	...	1,869
VIII.	...	2,428
½ IX.	...	72
½ B.	...	6,781
3/27 Direction charges	...	2,520
		14,018

	Rs.
Receipts from timber removed by Government agency were ... *...	27,150
Expenses on timber operations were ** ..	20,473
Leaving a profit of ... *...	6,677
Other receipts were	48,732
Cost of revenue collections with share of establishments was	13,280
Giving a surplus of	35,452
Giving a total surplus of	42,129
Against which must be charged cost of works of improvement and conservancy, with share of establishments ...	14,018
Leaving a clear profit of	28,111

The surplus would have been more than double this had the value of sleepers sold to the Bengal and North-Western Railway Company been allowed to stand in the accounts ; however, the whole of the sleeper transactions in this Division will be cleared during 1884-85.

(*e*)—*Gonda Division.*—

		Rs.
A. I.	...	2,552
A II.	...	622
A. III.	...	58
½ VI.	...	250
½ VII.	...	732
½ B.	...	3,136
1½/27 Direction charges	...	1,260
		6,058
½ A. VI.	...	349
½ A VII.	...	732
½ A. VIII.	...	692
½ B.	...	3,135
1½/27 Direction charges	...	1,260
		6,068

	Rs.
Receipts from timber removed by Government agency were	2,959
Cost of timber operations were ...	2,552
Giving a surplus on timber operations of	†407
Other receipts were	17,165
The cost of revenue collection with share of establishment was	6,058
Leaving a profit of	11,107
Giving a total profit of	11,514
From which must be deducted cost of works of conservancy and improvement, with share of establishments	6,068
Giving a clear profit of	5,446

(*f*) *Gorakhpur Division.*—The revenue realized from timber, &c., removed by Government agency was :—

					Rs.	a.	p
769 sál ballas	...	...	...	...	135	0	9
7 koios	...	...	...	...	9	12	0
23,390 Maunds firewood	...	...	...	...	1,023	5	0
			Total	...	1,159	1	9

* More money to be received in 1884-85.

† The whole receipts could not be credited in the year

The following table shows the figures of the financial results :—

	Rs
A. I.	3,505
A. II.	377
½ VI.	404
½ VII.	1,177
½ IX.	5
½ B.	4,977
14/27 Direction charges ...	1,260
	8,200
½ A. VI.	405
½ A. VII.	1,176
A. VIII.	10,026
½ A. IX.	5
½ A. B.	4,977
14/27 Direction charges ...	1,260
...	17,852

	Rs.
Receipts from timber removed by Government agency were	1,163
Deduct cost of timber operations ...	3,509*
Giving a deficit of	2,336
Other receipts were	65,876
The cost of revenue collection with share of establishments was	8,200
Giving a surplus of	57,676
Deduct deficit under timber operations ...	2,360
Leaving an actual profit of	55,340
From which must be deducted cost of works of improvement and conservancy, with share of establishments ...	17,852
Giving a surplus of	37,488

75. *Profits of the year with assets.*—The following table shows the estimated profits of the year's operations, taking assets into consideration, in the form desired by the Local Government :—

Particulars.	*Amount.* Rs.
Receipts of the department	8,05,538
Expenditure	4,89,214
Surplus ..	3,16,324
Value of timber at commencement of the year	3,95,840
Ditto at close of the year	4,86,877
Difference in favor of the year	91,537
Total surplus ...	4,07,861
Value of live and dead stock at commencement of the year	1,47,197
Ditto at close of the year	1,67,726
Difference in favor of the year	20,529
Total surplus ...	4,28,390
DEDUCT—.	
Outstandings at commencement of the year	44,123
Balance ...	3 84,267
ADD—	
Outstandings of the year (Rs. 43,559-11-1 × 1,08,637-4-0 = 1,52,196-15-1 ...	1,52,197
Total ...	5,36,464
ADD—	
Amount received in advance on account of value of sleepers struck out of stock,	1,24,480
Total ...	6,60,944
ADD—	
To this must be added value of Rs. 1,54,285 sleepers, for which part payment in advance (Rs. 1,20,000) has been received from Major Gracey and the sleepers struck out of stock, but not removed (2,05,753 — 1,20,000 = 85,753) ...	85,753
Showing a gain of ...	7,46,697

* The receipts for sleepers will come in 1884-85 to some Rs. 30,000

76. *Value of free produce.*—In appendix E. the detail of produce supplied gratis to the privileged villagers in Kheri, Bhira, Bahraich, Gonda, and Pilibhít is given, as also the free grants of timber to District Officer for building roadside bungalows in Gorakhpur.

From these figures, together with the reduced rates of grazing dues to privileged villagers and free grazing to "Thárus" and others, I estimate about 1½ lakh of rupees worth of forest produce was given away during the year.

77. *Outstandings.*—The outstandings on account of revenue due to the Department are Rs. 43,559-11-1. Of this Rs. 16,521-12-1 is due from Public Department, and Rs 27,037-15-0 from private purchasers, in this case mostly the Bengal and North-Western Railway Company or its contractors (running account), most of which is recoverable; some items of grazing dues in Bahraich and Kheri, which the Deputy Commissioners are endeavouring to realize. The sum of Rs. 1,08,050 on account of sleepers is included in the sum of Rs. 1,08,657-4-0 in statements under para 75. This money was actually paid before the end of the year, but was not received in the Bank of Bangal, Calcutta, till April, 1884, and so have had, by the order of the Comptroller-General, to be credited to the year 1884-85.

CHAPTER VI.

GENERAL REMARKS.

78. *Controlling staff.*—Mr. Ponsonby obtained his promotion to 1st grade Deputy Conservator. He has worked well. Mr. Allan has conducted the current work of the division as well as the very heavy sleeper operations with great ability and care. His arrangements in obtaining sawyers from distant places, for feeding them and for their comfort; his arrangements for the carrige of the sleepers, for passing the sleepers, for the selection of trees and all other details, were carried on without a hitch. In this work he was ably assisted by Messrs. Hearle and Hobart-Hampden from the School Circle, and by Messrs. Pinder and Battie. Messrs. Hearle and Hobart-Hampden returned to their own Circle when the work in the forest was completed. Mr. Pinder has since been transferred to the Panjab on promotion, and Mr. Battie, I believe, has been promoted to 3rd grade Assistant and transferred to Madras. Mr. Dansey, who returned from furlough early in the year having only joined the Circle a month or two before he left it on leave, has shown himself a good officer, taking great interest in his division and working with a conscientiousness and thoroughness which is highly praise worthy. Mr. Campbell, in charge of Gorakhpur, has as usual done excellent service both in revenue work and the work of construction and improvement, and I trust that he will soon be rewarded with promotion to the grade of Assistant Conservator, 2nd grade. His planting has been very successful. In para. 101 of last year's report an error occurred in the statement of Mr. Campbell's services. It should have been that he held charge of the division for three years and five months, not two years and six months.

Mr. Rebsch has worked well, but should be more particular in the submission of reports and returns.

Babu Kanhya Lal has again worked very well. The way he has supplied scantlings and sleepers has, I believe, given great satisfaction, and I trust that he will soon be rewarded for this careful supervision he gives to the work that is entrusted to him.

79. *Forest staff.*—Of the subordinate staff, Ranger Amanat-ulla Khan of Gonda, Kasim Khan of Kheri, Mathura Parshad of Kheri, and Ragunath Pathak of Gorakhpur have done very good work, and Mr. Ponsonby has expressed his pleasure of the way Permeswari Din, Officiating Ranger in Bhira, has worked. He is now at the

Forest School with a view of obtaining the Ranger's certificate. I regret to say that Jagdeo Singh, forester in Gorakhpur, whose name I brought forward last year, has not deserved the trust that was placed in him. The forest staff has, as a rule, worked well.

80. *Office staff.*—The work of all the offices has been extremely heavy this year owing to increased operations in every division. Babu Raghubar Dayal Bajpai, Jai Datt Joshi, and Daulat Rai deserve special mention.

Owing to the increased work in all divisions and in the Direction Office the establishment requires strengthening and revision; proposals for these will be made the first opportunity.

81. *Health.*—The health of the establishment has been fair. I suffered from fever, and so have some of the other officers, and I regret to say that Mr. Allan, who remained rather late in the forests to clear up work, has, since he returned to station, been laid up with very painful rheumatism. In the office establishment I have to regret the loss, by death, of Babu Bankey Lal. Gorakhpur is especially unhealthy, and Mr. Campbell, in charge, and Mr. Nicholson, who was demarcating the boundaries, suffered from severe fever, and some of the forest subordinates died.

The workmen who came from long distances, Amritsar, Dehli, and other places, were, on the whole, healthy.

NAINI TAL:
The 7th August, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL STATEMENTS.

ANNUAL FORM No. 49 —(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH

Area of Reserved Forests, 1883-84.

Division or range	Civil district or territory.	Name of forest.	*Area on 1st April*, 1883		*Added during the year*	*Excluded or transferred to other heads*	*Area on 31st March*, 1884		No and date of notification of addition or transfer	Remarks.
			Acres	Equivalent in square miles	Acres	Acres.	Acres.	Equivalent in square miles.		
Pilibhit ...	Pilibhit ...	Pilibhit Division .. .	87 680	137	...	...	87,680	137	... .	
Bhira Sub-division,	Kheri ...	Bhira Sub-division	104 960	164	4,206	4,288	104,878	164	Notification No. 823 of 18th September, 1883.	Exchange of lands between the Forest Department and Mr L. D Hearsey in Kheri was sanctioned by the Government of India and the exchange carried out.
Kheri (trans-Sarda),	Kheri ..	Newalkhar ditto ... Kharigarh ditto ..	168,320	263	.	...	168,320	263	Ditto ...	
Bahraich ...	Bahraich	Motipur, ditto ... Bhinga, ditto ..	164,480	257	...	...	164,480	257	Ditto ...	
Gonda ...	Gonda ...	Gonda Division	98 258	154	...	...	98,258	154	Ditto ...	
Gorakhpur ...	Gorakhpur ..	Gorakhpur ditto ...	73,600	115	26,827	...	100,427	157	No 893 of 26th October, 1883.	Grass lands made over by Collector to the Forest Department and included in the Reserved Forests.
		Total ...	697,298	1,090	31 033	4 288	724,043	1,132		

NAINI TAL
The 6th June, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N. W. P and Oudh, Oudh Circle.

ANNUAL FORM No. 50.—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Plantations, 1883-84.

Division.	Name of Plantation.	On 1st April, 1883.		Added during 1883-84.		On 31st March, 1884		Remarks
		Area.	Cost.	Area.	Cost.	Total area.	Total cost	
		Acres.	Rs	Acres	Rs.	Acres	Rs	
Bahraich ...	Nishangara ...	11	462	...	...	11	462	
	Kain ...	5	95	...	...	5	95	
	Dondra ...	2	84	...	28	2	112	
	Ponsonbygan ...	1	11	...	...	1	11	
	Rawtara ...	...	...	...	53	..	53	
	Total	19	652	...	81	19	733	
Gorakhpur ...	Ramgarh ...	553	9,008	*–250	†210	†303	9,218	* Nursery charges
	Sonari ...	100	553	...	192	100	745	† 150 acres taken out.
	Sakhui ...	300	995	†250	2,911	550	3,906	
	Total	953	10,556	...	3,313	953	13,869	
	GRAND TOTAL	972	11,208	...	3,394	972	14,602	
Pilibhit ...	Cultivable operations ...	...	...	...	313	...	313	
Bhira ...	Ditto ...	...	62	...	11	...	73	
Kheri ...	Ditto ...	...	1,241	...	554	...	1,795	
Bahraich ...	Ditto ...	...	296	...	64	...	360	
Gonda ...	Ditto ...	...	6	...	1	...	7	
	Total	...	1,605	...	943	.	2,548	
	Total	972	12,813	...	4,337	...	17,150	

NAINI TAL:
The 7th June, 1884

E WOOD, CAPTAIN,
Conservator of Forests, N.-W P and Oudh, Oudh Circle.

FORM No. 51.—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of forest tracts protected from fire during the dry season of 1884 *(to accompany report for* 1883-84.)

Division.	Forest tracts.	Up to 30th June, 1883.		During dry season of 1884.					Year in which protection commenced.	Remarks.
		Area actually protected.	Total cost.	Area attempted to be protected.	Failures.	Actually protected.	Amount expended.	Total cost up to 30th June, 1884.		
		Acres.	Rs. a. p	Acres	Acres.	Acres	Rs. a. p.	Rs. a. p		
Pilibhit.	Mahofe home block.	19,788	4,984 6 8	20,588	12,736	7,852	1,924 14 9	6,909 5 5	July, 1879.	
	Total ...	19,788	4,984 6 8	20,588	12,736	7,852	1,924 14 9	6,909 5 5	"	
Bhira Sub-Division.	Marha home block.	15,562	5,670 12 6	15,930	80	15,850	1,915 1 10	7,585 14 4	Jan., 1877.	
	Total ...	15,562	5,670 12 6	15,930	80	15,850	1,915 1 10	7,585 14 4	"	
Kheri.	Dudua home block	22 290	14,196 4 5	22,290	5,120	17,170	2,530 5 3	16,726 9 9	Mar., 1872.	
	Kasumbha home block.	19,840	2,709 15 7	19,840	15,680	4,160	1,183 11 3	3,893 10 10	Jan., 1881.	
	Total ...	4 ,130	16,906 4 1	42,130	20,800	21,330	3,714 0 6	20,620 4 7	"	
Bahraich.	Nishangarh home block.	18,670	3,645 14 9	21,120	...	21,120	551 10 0	3,397 8 9	Feb., 1875.	
	" Bambu plot.	640				640				
		1,440								
	Charda Compartment 1	4,960	8,979 1 9	640	...	1,560	678 14 2	9,557 15 11	Mar., 1875	*1380 acres excluded.
	Dhauris.									
	" Rest of the forest.	22		1,560	...	6,760				
	Kakardari block,	16		6,750	...	22				
	Asuaria "	16		22	...	16				
	Lachmanpur "	...		16	...	16				
	Compartment 3	...		16	...	784				
	Bhartha " 5	1,400		784	...	1,565				
	Bhinga " 3	1,654		1,565	...	1,560				
	" " 4			1,560	...	1,450				
	" " 1 (Part of).	1,186		1,450	...					
	" " 2 (Part of).			1,186	...	1,186				
	Angarghat block									
	Total ...	30,014	12,425 0 6	36,679	...	36,679	1,230 8 2	13,655 8 8	...	
Gorakhpur.	Ramgarh and Tilkona.	6,747	8,737 12 1	6,754	1,000	5,754	1,687 6 5	10,425 2 6	Jan., 1875.	
	Nagwa ..	6,000		6,000	...	6,000				
	Sonari and Jagpur.	22, 32		22,132	...	22,132				
	Dudhai ...	8,600		8,600	300	8,300				
	Bhilaiampur and Banki.	4 034		4,154	250	3,904				
		7,600		7,600	20	7,580				
	East Lehra ...					6,306				
	West Lehra ...	12,300		12,300	6,000					
	Bhari Baisi and Bhari Babau.	6,000		6,000	...	6 000				
	Total ...	73,413	8,737 12 1	73,540	7,570	65,970	1,687 6 5	10,425 2 6	...	
	GRAND TOTAL ...	180 907	48,724 3 10	189,967	41,186	147,681	10,471 15 8	59,195 3 6	...	

	Rs. a. p.
Charged in previous years	45,171 10 7
Ditto, 1883 84	10,468 10 6
... ...	55,640 5 1
	3,555 14 5
Ditto 1884-85	55,640 5 1
Total	59,195 3 6

NAINI TAL.
The 19th July, 1884.

R. WOOD,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No. 52.—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH,

Prosecutions for breaches of Forest Rules during 1883-84.

Forest Division and Civil District.	Cases pending from 1882-83	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons	Cases.	Persons.	
Pilibhit Division.														
Pilibhit district	...	2	2	1	2	7	7	4	12	2	8	6	20	1
Bhira Sub-division.														
Kheri district	...	...	1	...	...	1	1	...	...	1	2	1	2	...
Kheri Division.														
Kheri district	...	...	7	...	...	7	7	5	11	...	...	5	11	2
Bahrámghát Division.														
Lara Banki district	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bahraich Division														
Bahraich district	1	...	21	3	3	27	28	24	61	4	9	28	70	...
Gonda Division.														
Gonda district	1	1	2	6	...	11	12	8	20	4	15	12	35	...
Gorakhpur Division.														
Gorakhpur district	...	2	2	1	1	6	6	4	7	...	...	4	7	2
Total ...	2	5	35	13	6	59	61	45	111	11	34	56	145	5

All the above cases were tried by Magistrates Besides these —
In Kheri ... 7 cases were compounded by Divisional Forest Officer
In Gorakhpur ... 14 ditto ditto ditto.
In Gonda ... 9 ditto ditto ditto.

NAINI TAL
The 20th June, 1884.

E WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX 1 TO FORM No. 52.—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Prosecutions for breaches of Forest Rules compounded by Divisional Forest Officers during 1883-84.

Forest Division and Civil District.	Cases pending from 1882-83.	Injury to forest by fire.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year
			Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases	Persons.	
Kheri Division.															
Kheri District	...	...	...	5	...	2	7	7	7	7	...	...	7	7	...
Gonda Division.															
Gonda District	...	...	...	2	...	...	2	2	2	4	...	...	2	4	...
Gorakhpur Division.															
Gorakhpur District	...	...	...	3	11	...	14	14	14	14	...	...	14	14	...
Total ...	...	...	...	10	11	2	23	23	23	25	...	...	23	25	...

NAINI TAL:
The 2nd July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No 53.—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of Revenue of the different Divisions, 1883-84.

Budget heads, Receipts.	Direction	Kheri Division.	Bihra Sub-division	Bahramghât Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhit Division	Total.
	Rs. a. p.	Rs a p.	Rs. a. p	Rs a. p.	Rs a p.	Rs. a p	Rs a. p	Rs. a. p	Rs. a. p.
I —Timber and other produce removed from the forests by Government agency —									
(a) Timber	...	2,73,771 12 5	...	3,16,531 10 8	27,149 14 4	2,930 10 6	139 6 6	...	6,20,523 6 5
(b) Firewood and charcoal	...	...	...	...	...	28 4 0	1,023 5 0	1,015 2 0	2,066 11 0
(c) Bamboos	...	...	...	...	...	...	...	...	...
(d) Sandalwood	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	...	...	...
II —Timber and other produce removed from the forests by consumers or purchasers —									
(a) Timber	...	12,115 10 10	1,245 10 6	...	16,496 4 7	4,373 10 7	31,846 0 0	1,354 10 6	67,431 14 6
(b) Firewood and charcoal	...	311 12 0	493 14 6	...	873 6 0	538 7 3	25,667 15 4	4,985 6 0	32 870 13 1
(c) Bamboos	...	...	...	...	57 11 0	...	...		57 11 0
(d) Grazing and fodder grass	...	10 974 14 1	2,877 14 6	...	10,238 9 6	6 762 13 10	2,287 15 9	1,180 4 9	34,322 8 5
(e) Other minor produce	...	6,541 11 9	1,848 2 8	...	18,556 4 6	4 883 3 2	4,193 4 1	856 10 7	36,879 4 9
III.—Confiscated, drift and waif wood	...	1,489 11 6	...	...	2,060 0 0	438 6 3	269 14 0	51 9 4	4,309 9 3
IV —Revenue from forests not managed by Government —									
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests	...	...	...	...	...	...	...	...	...
V —Miscellaneous									
(a) Fines and forfeitures	...	103 8 0	34 12 0	...	4 2 0	7 0 0	...	78 0 0	227 6 0
(b) Refunds	...	5 15 5	...	12 8 0	...	...	...	...	18 7 5
(c) Other sources	...	3,882 4 11	62 3 3	571 2 2	445 11 11	161 0 5	1,611 3 5	96 3 6	6,829 13 7
Total Receipts	...	3,09,197 4 11	6,562 8 11	3,17,115 4 10	75,881 15 10	20,123 8 0	67,039 0 1	9,617 14 10	8,05,537 9 5

CALCUTTA
The 26th July, 1884

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests.)

ANNUAL FORM No. 53.—(Prescribed.)

Forest Department, Oudh Circle, North-Western Provinces and Oudh.

Summary of Expenditure of the different Divisions, 1883-84.

Budget heads.	Direction.	Kheri Division.	Bhira Sub-Division.	Bahrámghát Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhit Division.	Total.
A.—Conservancy and Works	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency.—									
(a) Timber	...	2,36,985 11 8	...	49,071 15 10	20,472 15 2	2,551 13 6	2,069 1 3	...	3,11,151 2 5
(b) Firewood and charcoal	...	...	...	...	...	...	1,439 15 10	1,593 6 4	3,033 6 2
(c) Bamboos	...	...	...	...	...	...	...	...	...
(d) Sandal-wood	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers	...	1,533 9 10	1 843 7 5	...	1,693 2 6	621 11 8	376 14 5	2,942 13 4	9,011 11 2
III.—Confiscated, drift and waif wood .	...	165 10 7	...	...	...	58 9 4	...	..	224 3 11
IV.—Revenue from forests not managed by Government—									
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests ..	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government ...	...	...	...	...	...	...	...	...	...
VI.—Live Stock, Stores, Tools and Plant —									
(a)—Purchase of cattle	...	3,700 0 0	...	17 0 0	...	...	...	...	3,717 0 0
(b)—Feed and keep of cattle	...	2,025 1 0	191 7 5	496 8 6	566 1 9	492 0 8	674 0 8	675 8 5	5,120 13 2
(c)—Stores, tools and plant	...	25 1 12 0	3 8 0	11,537 9 0	86 10 6	6 9 0	135 4 0	25 9 0	12,046 13 6
VII.—Communications and Buildings —									
(a)—Roads and bridges	...	6,905 4 8	1,443 6 6	...	2,739 10 6	627 6 9	336 10 7	979 11 0	13,092 2 0
(b)—Buildings	...	3,754 15 8	1,116 14 0	260 5 4	1,037 6 0	722 14 8	1,980 9 4	135 15 0	9,009 0 9
(c)—Other works	...	698 13 11	531 3 9	...	2 4 0	53 10 0	38 2 8	18 11 0	1,342 13 4
VIII.—Demarcation, improvement and extension of forests —									
(a)—Demarcation	...	...	496 1 0	...	351 3 6	129 5 3	733 9 1	46 14 0	1,757 0 10
(b)—Compensation for Land and rights ...	...	...	195 4 10	...	...	...	...	22 10 4	217 15 2
(c)—Surveys and working plans ...	...	...	...	...	..	...	...	...	...
(d)—Plantations	...	554 7 8	10 8 0	...	153 3 8	0 8 0	3,313 5 16	...	4,032 1 2
(e)—Protection from fire	...	3,837 14 9	1,760 8 0	...	1,573 0 6	309 12 0	1,792 8 4	1,204 14 11	10,468 10 6
(f)—Other works	...	198 3 0	33 1 3	...	350 6 9	252 0 0	4,185 15 10	23 4 9	5,042 15 7

IX—Miscellaneous—										
(a)—Refunds	...	...	...	...	...	...	...	...	...	
(b)—Law charges	...	...	...	...	...	...	...	...	...	
(c)—Other charges	...	541 4 11	203 8 0	170 9 0	142 13 9	...	10 11 0	149 3 6	1,218 2 2	
Total A.—Conservancy and Works ...	...	2,61,142 14 5	7,828 14 2	61,553 15 8	29,168 14 7	5,886 4 10	17,086 12 10	7,818 10 4	3,90,486 6 10	
I—Salaries—										
(a) Conservators	17,379 0 6	...	...	...	...	...	...	...	17,379 0 6	
(b) Superior officers	...	14,680 11 1	...	2,400 0 0	6,577 8 6	3,000 0 0	2,629 0 4	10,186 10 8	39,473 14 7	
(c) Subordinate forest and depôt establishments	...	4,707 12 4	766 2 2	181 10 10	2,868 3 5	1,563 0 0	4,664 8 5	514 5 1	15,295 10 3	
(d) Office establishments	2,236 1 1	2,088 1 9	45 15 5	455 12 10	1,386 1 0	420 0 0	365 0 0	522 2 1	7,419 2 2	
(e) Deputation and special allowances ...	...	...	...	...	...	...	164 8 3	...	164 8 3	
II—Travelling Allowances—										
(a) Conservators	1,560 9 6	...	...	...	...	...	...	...	1,560 9 6	
(b) Superior officers	...	3,706 7 2	...	212 6 1	1,340 10 8	568 0 5	1,451 9 6	1,361 11 0	8,640 12 5	
(c) Subordinate forest and depôt establishments	...	1,341 6 9	...	...	389 7 7	90 9 7	355 2 6	96 1 0	2,272 11 5	
(d) Office establishments	475 6 8	649 12 3	18 13 [illegible]	...	433 0 5	83 10 4	33 9 7	155 9 4	1,846 14 2	
III—Contingencies—										
(a) Stationery	9 4 0	16 15 6	8 0 0	...	3 6 0	8 2 6	4 11 0	11 4 0	61 11 0	
(b) Carriage of tents and records	253 14 9	70 12 0	57 1 0	...	125 12 0	70 0 0	47 0 0	57 1 6	681 8 9	
(c) Rents, rates and taxes	209 0 0	...	104 0 0	...	0 8 6	100 0 0	100 0 0	104 0 0	617 8 6	
(d) Pay of police guards	...	277 5 3	25 3 0	192 0 0	119 0 0	170 6 2	60 0 0	87 7 0	906 2 5	
(e) Official postage	205 13 0	83 2 9	61 2 2	85 5 6	67 5 0	32 8 0	31 2 6	33 9 6	564 1 3	
(f) Sundries	351 2 11	649 0 5		157 11 8	251 0 0	165 0 6	117 10 10	90 11 9	1,843 8 3	
Total B.—Establishments ..	22,680 4 5	28,271 7 3	1,086 5 4	3,684 14 11	13,561 15 1	6,271 5 1	9,953 14 11	13,217 8 5	98,727 11 5	
GRAND TOTAL OF EXPENDITURE	22,680 4 5	2,89,414 5 8	8,915 3 6	65,238 14 7	42,730 13 8	12,157 9 11	27,040 11 9	21,036 2 9	4,89,214 2 3	

CALCUTTA
The 26th July, 1884.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 54—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account Current for the year 1883-84.

Dr.

Heads of account.		Rs. a. p.	Rs. a. p.
To cash balance on 1st April, 1883		...	4,597 9 0
,, revenue as per annual summary (Form No. 53)		...	8,05,537 9 5
Service Fund			
,, Uncovenanted Service Family Pension Fund, Bengal ...		...	438 8 0
,, Deposits		...	100 0 0
Forest Cash Remittance (Local.)			
,, Forest cheques drawn		5,29,880 5 5	
,, Inter divisional transfers		2,85,342 0 4	8,15,222 5 9
,, Advances recoverable		...	6,30,823 2 4
,, Suspense		...	4,268 7 4
Account current (other Governments.)			
,, Government of India		236 15 0	
,, Government of Bombay		600 0 9	836 15 9
Inter departmental transfer.			
,, Public Works Department (other Branches)		752 8 0	
Civil Department			
,, Jails	24 11 0		
,, Mathematical Instrument Department ...	20 12 0		
		45 7 9	797 15 9
Total ...		...	22,63,022 9 4

Cr.

Heads of account.		Rs a p	Rs. a. p
By expenditure as per annual summary (Form No. 53) ...		...	4,89,214 2 3
,, Deposits		...	71 8 0
Forest Cash Remittances (Local.)			
,, Remittances to Treasury		2,65,787 13 7	
,, Inter-divisional transfers		2,60,158 2 11	5,25,946 0 6
,, Advances recoverable		...	6,78,985 0 10
Account current (other Governments.)			
,, Government of India		1,18,137 1 0	
,, Government of Panjáb		1,545 3 4	1,19,682 4 4
Inter departmental transfer.			
,, Public Works Department, State Railway		3,90,007 13 1	
,, ditto other Branches		33,516 4 1	
Civil Department			
,, Jails	4,682 4 0		
,, Miscellaneous	15,794 15 0		
		20,477 3 0	
,, Military Department, Bengal		4,348 1 9	4,48,349 5 11
,, Closing balance on 31st March, 1884		...	794 3 6
Total ...		...	22,63,022 9 4

CALCUTTA:
The 26th July, 1884.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 55—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outstandings and Liabilities on account of Contractors and Disbursers for 1883-84.

Division	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year	To Department (outstandings).	By Department (liabilities)	
		Rs. a. p.	Rs. a. p.	Rs a p	Rs. a. p.	Rs. a. p	Rs a. p.	Rs a p	
Direction	...	2,569 6 7	2,569 6 7	21 14 10	2,741 11 5	2,763 10 3	194 3 8		
Kheri	...	4,72,991 11 2	4,72,991 11 2	53,674 2 4	5,09,770 2 5	5,63 444 4 9	90,452 9 7	...	
Bhira Sub-division	...	9,576 4 6	9,576 4 6	1,267 14 10	9,122 1 7	10,390 0 5	813 11 11	...	
Bahramghát	...	6,793 13 3	6,793 13 3	955 13 9	6,996 14 7	7,952 12 4	1,352 14 3	193 15 2	
Bahraich	...	91,972 2 7	91,972 2 7	10,238 11 10	91,964 11 1	1,02,203 6 11	10,231 5 4	0 1 0	
Gonda	...	14,582 7 8	14,582 7 8	901 7 11	13,960 14 9	14,862 6 8	279 15 0	..	
Gorakhpur	...	21,085 1 0	21,085 1 0	879 4 11	32,526 3 8	33,405 8 7	12,320 7 7	.	
Pilibhit		11,252 3 7	11,252 3 7	718 0 9	11,882 5 4	12,600 6 1	1,348 2 6	.	
Total ...	.	6,30,823 2 4	6,30 823 2 4	68,657 7 2	6,78,965 0 10	7,47,622 8 0	1,16,993 5 10	194 0 2	

CALCUTTA.
The 26th July, 1884

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 56—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue received and Outstandings on account of Revenue during 1883-84.

Division	Particulars	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks
		Rs. a. p.	Rs. a p	Rs a p.	Rs. a p.	Rs. a. p.	
Direction ...	Timber and other produce &c ..	...	...	...	...	..	(a) Revenue received in advance.
Kheri ..	Ditto ditto .	5,879 5 7 —2,949 11 6	1,90,165 10 5	1,93,095 4 6	8,09,197 4 11	9,847 11 1 (a)—1,22,949 11 6	(b) Includes Rs 15,901-4-1 written off under Local Government No. 825, dated 18th September, 1883.
Bhira Sub-division,	Ditto ditto ..	143 7 0	6,568 7 11	6,711 14 11	6,562 8 11	149 6 0	
Bahramghât	Ditto ditto ...	11,710 15 0	3,18,678 2 11	3,30,389 1 11	3,17,115 4 10	14,803 13 1	
Bahraich ...	Ditto ditto ..	18,405 6 7	78,137 7 1	96,542 13 8	(b)91,788 3 11	(a)—1,530 0 0 4,759 9 9	* Realization as per Form No. 53 .. Rs. 8,05,537 9 5
Gonda ...	Ditto ditto ...	1,917 15 0	19,933 8 0	21,851 7 0	20,123 8 0	1,727 15 0	Amount written off under Government order ... " 15,901 4 1
Gorakhpur ...	Ditto ditto ...	6,066 14 6	76,137 0 6	82,203 15 0	67,039 0 1	15,164 14 11	
Pilibhit ...	Ditto ditto ...	—	9,724 4 1	9,724 4 1	9,617 14 10	106 5 3	Total ... " 8,21,438 13 6
	Total ..	44,123 15 8 —2,949 11 6	6,99,344 8 11	7,40,513 13 7	*8,21,438 13 6	43559 11 1 —1 24 479 11 6	*From Public Department.* Rs. a. p. 16,521 12 1; *From private purchasers* 27,037 15 0
	Net Total ...	41,174 4 2	6,99,344 8 11	7,40,518 13 1	8,21,438 13 6	—80,920 0 5	Deduct amount received in advance 1,22,949 8 10; Rs. a p 1,530 2 8
							—1,06,427 12 9; 25,507 12 4
							Net revenue received in advance 80,920 0 5

CALCUTTA
The 26th July, 1884

G J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests)

ANNUAL FORM No. 57—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Financial Results of the year 1883-84.

Division.	*Timber and other produce removed from the forests by Government agency*		*Other revenue.*		*Formation, protection, and improvement of forests*	*Total.*		Remarks
	Receipts	Charges	Receipts	Charges.	Charges.	Receipts	Charges.	
	Rs	Rs	Rs	Rs.	Rs	Rs.	Rs.	
Pilibhit	1,015	1,593	8,602	11,805	10,158	9,618	23,556	
Bhira Sub-division	...	...	6,562	5,392	6,043	6,562	11,435	
Kheri	2,73,772	2,54 048	35,425	18,764	21,642	6,26,312	3,62,213	
Bahramghat	3,17,115	67,769						
Bahraich	27,150	20,473	48,732	13,280	14 918	75,882	47,771	
Gonda	2,959	2,552	17,165	6,058	6,068	20,124	14,672	
Gorakhpur	1,163	3,502	65,876	8,200	17,852	67,039	29,561	
Total ...	6,23,174	3,49,934	1,62,364	63,499	75,781	8,05,538	4,89 214	

NAINI TAL
The 30th June, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P and Oudh.

FORM No 58—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH,

Trees felled by Government agency during the year 1883-84—(*Selection fellings.*)

Division	Trees felled.		Remarks
	Description.	Number	
Kheri	Sál	2,537	37 turned out bad

Abstract of the Circle

Description of trees	1st class above 6′ in girth	2nd class 6′4½′ in girth	Remarks
Sál	2,537		

NAINI TAL
The 9th June, 1884

F. WOOD, CAPTAIN,
Conservator of Forests, N-W P and Oudh, Oudh Circle.

APPENDIX I TO FORM No 58—(SUGGESTED)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Trees felled by Government agency during 1883-84 (*Mature, rolled and crooked trees, other than regular selection fellings*).

Division	Trees felled		Remarks
	Description.	Number	
Kheri	Sal crooked and bad trees	30,124	For sleepers
	Asna	4 902	
Bahraich ..	Sál crooked and decaying trees ..	1,908	
Gonda	Sal	1 283	
	Asna	78	
	Total ..	38,295	

Abstract of the Circle

Description of trees.	1st class above 6′ in girth	2nd class 6′—4½′ in girth	3rd class 4½′—3′ in girth	4th class 3′—1½′ in girth	5th class under 1½′ in girth	Total of each kind of trees.	Remarks
Sál ...	1,792	30,435	768	320	...	33,315	
Asna .	4,915	44	20	1	.	4 980	
Total ...	6,707	30,479	788	321	...	38 295	

NAINI TAL
The 25th June, 1884

E. WOOD, CAPTAIN,
Conservator of Forests, N-W P. and Oudh, Oudh Circle

APPENDIX II. TO FORM No. 58.—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Summary of receipts and expenditure on departmental thinnings during the year 1883-84.

Division.	Description of timber.	On hand at commencement of the year.		Cut during the year.		Total.		Expenditure on year's cutting or thinning		Sold during the year.		On hand at close of the year.		Remarks.
		Number	Value.	Number	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value	
			Rs.		Rs. a. p.		Rs. a. p.		Rs a. p.		Rs. a. p.		Rs.	
Pilibhit ...	Firewood ...	...	...	5,850 Mds	1,170 0 0	5,850 Mds.	1,170 0 0	5,850 Mds	1,593 6 4	(a)5,000 Mds	(b)1,000 0 0	850 Mds.	170	(a) Of this only 550 maunds removed to 31st March, 1884. (b) Rs. 1,000 were paid in advance by Pilibhit Railway.
	Total ...	...	...	5,850	1,170 0 0	5,850	1,170 0 0	5,850	1,593 6 4	5,000	1,000 0 0	850	170	
Gorakhpur...	Sál ballas ...	...	...	6,291	3,245 11 0	6,291	3,245 11 0	6,291		6,291	3,245 11 0	...	...	(c) Besides this Rs 1,160-12-9 expended from January to March, 1884, will be adjusted in 1884-85.
	Sál koros ...	...	...	885	98 4 0	885	98 4 0	885		885	98 4 0	...	...	
	Sál dhorahs ...	...	...	39	31 2 0	39	31 2 0	39	(c)	39	31 2 0	...	...	
	Asna ballas ...	...	...	15	5 7 6	15	5 7 6	15		15	5 7 6	...	...	(d) Besides this Rs. 1,611-3-3 expended from January to March, 1884, will be adjusted in 1884-85.
	Mahua ...	...	...	11	53 9 0	11	53 0 0	11	(d)	11	53 0 0	...	...	
	Mahua Dhorahs ..	...	...	25	21 8 0	25	21 8 0	25	3,207 12 10	25	21 8 0	...	...	
	Jamun ballas ...	...	...	1	0 4 0	1	0 4 0	1		1	0 4 0	...	...	
	Gharsingha, cartloads ...	...	...	7	22 8 0	7	22 8 0	7		7	22 8 0	...	...	
	Pairua koro ...	...	...	1	0 2 0	1	0 2 0	1		1	0 2 0	...	...	
	Firewood ...	...	4,026	2,37 750 Mds	24,462 14 4	2,37,750 Mds.	28,488 14 4	2,37,750		2,37,750	22,733 14 4	...	5,755	Rs. 2,080 due from Katwaru Chaudhri. 1,175 due from Bundha Chaudhri 2,500 due from Mr Diveria, Rs. 1,000 since received.
	Total ...	...	4,026	7,905 2,37,750 Mds.	27,940 12 10	7,905 2,37,750 Mds	31,966 12 10	7,905 2,37,750 Mds.	3,207 12 10	7,905 2,37,750 Mds.	26,211 12 10	...	5,755	
	GRAND TOTAL ...	...	4,026	7,905 2,42,600 Mds	29,110 12 10	7,905 2,43,600 Mds.	33,156 12 10	7,'05 2,43,600	4,801 3 2	7,905 2,42,750 Mds.	27,211 12 10	850	5 925	57,55

NAINI TAL
The 25th June, 1884

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

FORM No. 59—(SUGGESTED).

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outturn of timber and other produce cut and collected by Government agency during the year 1883-84.

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or quantity.	Cubic feet.	
Kheri ...	Selection fellings ...	Sál logs	2,537	122,894	
	Ditto	„ pieces	743	7,744	
	Crooked trees ...	„ logs	30,476	1,020,245	
	Ditto ...	„ pieces	1,869	15,488	
	River ...	„ logs	4	193	
	Fellings ...	Asna logs	4,259	272,608	
	Ditto ...	Canoes from hollow trees,	126	...	
	River ...	Ditto ditto ...	1	...	
	Fellings ...	Miscellaneous poles ...	240	600	
	Conversions ..	Sal sleepers	347,384	473,358	
	Ditto ...	Arseyna sleepers ...	69,432	98,079	
	Ditto ...	Sál planks	3,200	5,384	
	Ditto ...	„ scantlings ...	95	1,045	
	Ditto ...	„ signal posts ...	23	512	
	Ditto ...	„ slabs	188,173	376,346	
	Collections ...	Drift timber ...	1,574	6,296	
		Total ..	649,436	2,400,822	
Bahraich ..	Fellings ...	Sál logs	1,908	75,206	
	Clearances ...	„ poles	107	2,911	
	Conversions ...	„ sleepers... ...	21,418	31,999	
	Ditto ..	„ offcuts of sleepers ...	20,077	20,077	
	Ditto ...	„ tops and ends ...	199	1,622	
		Total ...	43,709	131,915	
Gonda ...	Fellings ...	Sal logs	30	456	This is the outturn of 1283 sál and 78 asna logs shown in Form No. 58.
	Ditto ...	„ hollow logs ...	13	208	
	Ditto ...	„ poles	18	18	
	Ditto ...	Dhao axles	163	163	
	Clearances ...	Sál props posts, &c. ...	211	211	
	Ditto ...	Kusum timber ...	2	16	
	Conversions ...	Sal scantlings ...	400	160	
	Ditto ...	Asna „	946	946	
	Ditto ...	Sál planks	10	10	
	Ditto ...	„ karris	33	33	
	Ditto ...	„ pieces of scantlings,	326	500	
	Ditto ...	„ stumps	440	440	
	Ditto ..	Firewood ..	Mds. 410	...	
	Collection ...	Confiscated and drift timber.	456	912	
	Ditto ...	Confiscated charcoal ...	Mds. 45	...	
		Total ... { Number ... / Maunds ...	3,048 / 455	4,073	
Gorakhpur .	Thinnings ...	Firewood ...	Mds. 23,390	...	
	Collections ...	Drift and confiscated timber.	17	34	
		Total ... { Number ... / Maunds ..	17 / 23,390	34	
Pilibhit ..	Thinnings ...	Firewood .	Mds. 5,850	...	
	Collections ..	Drift and confiscated timber.	70	140	
		Total ... { Number ... / Maunds ...	70 / 5,850	140	
		GRAND TOTAL, { Number, / Maunds,	696,280 / 29,695	2,536,984	

FORM No. 59—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Outturn of timber and other produce cut and collected by Government agency during the year 1883-84—(concluded).

Division.	How obtained.	Produce cut and collected			Remarks.
		Description	Number or quantity.	Cubic feet.	
		Abstract of the Circle.			
		Sál logs	37 067	1,242,316	
		Asna logs	4,259	272 608	
		Sal poles	125	2,929	
		Miscellaneous poles ...	240	600	
		Sál props and posts ...	211	211	
		Kusum timber	2	16	
		Dhao axles	163	163	
		Sál scantlings ...	495	1,205	
		Asna ,, ...	946	946	
		Sál sleepers... ...	368,802	505,787	
		Asna ,, ...	69 232	98,079	
		Sál planks ...	3,210	5,394	
		,, signal posts ..	23	512	
		,, slabs	188,173	376,346	
		,, offcuts .	20,077	20,077	
		,, hollow logs ..	13	208	
		,, tops and ends ..	199	1,632	
		,, karris	33	33	
		,, pieces of scantlings,	326	500	
		,, stumps	440	440	
		Canoes	127	..	
		Firewood	Mds. 29,650	...	
		Confiscated drift timber,	2,117	7,382	
		Confiscated, charcoal ..	Mds. 45	...	
		Total .. No. ...	696,280	2,536,984	
		Total .. Mds. ..	29,695		

NAINI TAL :
The 29th June, 1884.

E WOOD, CAPTAIN.
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

FORM No. 60—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Timber and other produce received from Forests in Sale Depôts during the year 1883-84.

Division.	Depôt.	Produce received.			Remarks.
		Description.	Number or quantity.	Cubic feet.	
Bahramghát ...	Bahrámghát ...	Sál logs	4,229	208,114	
		Asna ,, ...	216	13,822	
		Sissu ,, ...	435	9,439	
		Sundri ,, ...	4	85	
		Dhamin ,, ...	4	82	
		Sal sleepers	61,895	83,100	
		,, poles	176	3,126	
		Miscellaneous ...	240	298	
		Total ..	67,199	318,066	

Abstract of the Circle.

		Sál	4,229	208,114	
		Asna	216	13,822	
		Sissu	435	9,439	
		Sundri . ..	4	85	
		Dhamin	4	82	
		Sál sleepers	61,895	83,100	
		,, poles	176	3,126	
		Miscellaneous ...	240	298	
		Total ..	67,199	318,066	

NAINI TAL :
The 13th June, 1884.

E WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W P and Oudh.

FORM No. 61—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government agency during the year 1883-84.

Division	Depot or locality.	Produce sold. Description.	Number or quantity.	Cubic feet	Remarks.
		Part I—"Sold from Depôt"			
Bahramghât,	Bahramghât Depot	Sâl logs ..	9	484	
		Asna ,, ...	112	7,256	
		Sissu ,, ...	115	2,723	
		Sal scantlings and sleepers	2,50 412	2,44 777	45 520 sleepers of Kheri and 16 375 of Bahraich were transferred to Bahrámghat, but value of 16,045 sleepers of Bahraich and 42 435 of Kheri has been credited to these Divisions, though the number of sleepers appeared in the stock list of Bahramghât Division.
		Asna ,,	8,869	5,225	
		Sissu ,, ..	4	1	
		Sal pieces of logs ..	1,964	9 505	
		Asna ,, ,, ...	126	1,258	
		Sissu ,, ,, ...	3	43	
		Sal offcuts . Mds.	380	...	
		Sal offcuts . No ..	8,083	16,410	
		Sal offcuts . Stacks ...	171	...	
		Asna ,, ...	137	78	
		Sâl poles	44	847	
		Miscellaneous	285	498	
	Lucknow Depot	Sâl scantlings	292	3,000	
		Sâl offcuts Mds.	2,490	..	
		Total ... No	269,695	292,705	
		Total ... Stacks ...	171	...	
		Total ... Mds ..	2,820	..	
		Part II—"Sold locally"			
Kheri	Dudua ...	Sâl scantlings	258	264	
		,, sleepers	204,407	271,969	
		Asna ,, ...	9 5[illegible]	13,560	
	Khirigarh,	Sâl ,, ...	20 205	30,308	
	Newalkhar & Khalrigarh	,, planking ..	2,080	4 000	
		,, slabs	1,154	1,154	
	Sarda river.	Canoes .	21	...	
		Drift timber	1,574	6,296	
		Total	239,171	327,551	
Pilibhit ...	Mundlaghat, Kalt Lur ...	Sissu pieces	70	140	
		Firewood Mds	5 285	...	
		Total .. No.	70	140	
		Total .. Mds. ...	5,285	..	
Bahraich	Bahraich ...	Sleepers	13,127	19,882	
	Tirmohani ...	Off cuts ..	20,077	20 077	
	Bhartha ...	Pieces of sleepers (odds and ends)	199	1,632	
		Total ..	33 303	41 591	
Gorakhpur	Sakhui ...	Sal ballas ..	769	1,538	
		,, koros	4	4	
		,, gola ..	3	6	
		Fuel Mds.	23,390	...	
		Drift timber ..	17	34	
		Total No ..	798	1,582	
		Total Mds ..	23,390	..	
Gonda ..	Gonda forest,	Sâl logs	30	456	
		,, hollow logs ...	13	208	
		,, poles	18	18	
		Dhao axles	163	163	
		Sâl props, posts, &c ...	211	211	
		Kusum timber	2	16	
		Sal scantlings ..	400	160	
		Asna ,, ...	946	946	
		Sâl planks	10	10	
		,, karis ...	33	33	
		,, pieces of scantlings	328	500	
		,, stumps	440	440	
		Firewood Mds	410	...	
		Confiscated drift timber	456	912	
		,, charcoal Mds.	45		
		Total .. No ...	3,048	4,073	
		Total .. Mds. ...	455		
		Total ... No. ...	276,485	374,937	
		Total ... Mds. ...	29,130		
		GRAND TOTAL OF PARTS I AND II. No ...	546,180	667,642	
		GRAND TOTAL OF PARTS I AND II. Stacks ...	171	...	
		GRAND TOTAL OF PARTS I AND II. Mds ...	31,950	...	

FORM No. 61—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Sales of timber and other produce cut and collected by Government agency during the year 1883-84 —(concluded.)

Division.	Depot or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		Abstract of the Circle.			
		Part I.—"Sold from Depôt."			
		Sál logs	9	484	
		Asna „	112	7,256	
		Sissu „	115	2,728	
		Sál scantlings and sleepers,	250,704	248,377	
		Asna „	8,859	5,225	
		Sissu „	4	1	
		Sál pieces of logs ...	1,264	9,505	
		Asna „	126	1,258	
		Sissu „	3	43	
		Sál offcuts ... Mds. ...	2,820	16,410	
		No. ...	6,033		
		Stacks ...	171		
		Asna offcuts	137	78	
		Sál poles	44	847	
		Miscellaneous poles ...	265	498	
		Total ... No. ...	269,695	299,705	
		Stacks ...	171		
		Mds ...	2,820		
		Part II.—"Sold locally."			
		Sál logs	30	456	
		„ hollow logs... ...	13	208	
		„ scantlings	658	424	
		Asna „	946	946	
		Sál sleepers	2,37,630	3,22,159	
		Asna „	9 572	13,560	
		Sál planks	2,090	4,010	
		„ slabs	1,154	1,154	
		„ karris	33	33	
		Kusum timber	2	16	
		Sál props, posts, &c., ...	211	211	
		„ poles	18	18	
		Dhao axles	163	163	
		Sál offcuts	20,477	20,077	
		„ odds and ends ...	199	1,632	
		„ pieces of scantlings ...	326	500	
		„ stamps	440	440	
		„ ballas	769	1,538	
		„ koros	4	4	
		„ golas	3	6	
		Firewood ... Mds.	29,085	...	
		Confiscated, drift and waif wood	2,117	7,383	
		Confiscated charcoal. Mds.	45	...	
		Canoes	21	...	
		Total ... No. ...	2,76,485	3,74,937	
		Mds. ...	29,130		
		GRAND TOTAL OF PARTS I. AND II. No. ...	546,180	667,642	
		Stacks ...	171		
		Mds. ...	31,950		

NAINI TAL
The 29th July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

ANNUAL FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1883-84.

Particulars.		No or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
SALE DEPÔT.					
Balance at commencement of the year.					
Bahramghât Division. Bahramghât Depôt.	Sál logs	365	20 310		
	Asna logs	28	1,846		
	Sissu logs	169	3,854		
	Bahera logs	1	11		
	Dhao logs	1	14		
	Tikoe logs	1	10		
	Pander logs	1	18		
	Sál scantlings ...	1,56,776	15 092		
	,, sleepers	13,823	18,011		
	Asna scantlings ...	797	194		
	Deodar ,, ...	13	27		
	Sissu ,, ...	90	39		
	Sál poles	19	160		
	Miscellaneous poles ...	161	458		
	Sissa stumps ...	34	290		
	Large boats	16	...		
	Canoes	2	...		
Lucknow Depôt ...	Sál scantlings ...	128	148		
Bahraich Division, Dhermapur Depôt	Canoes ...	458	...		
				1,72,583	60,442
Locally					
Kheri Division ...	Sál logs	8,226	305,065		
	Asna logs	652	21,613		
	Sissu logs	316	8,466		
	,, pieces	110	1,100		
	Sál sleepers	57,926	74,897		
	,, scantlings ...	258	264		
	,, karis	153	231		
	,, pieces (slabs) ...	40,538	81,076		
	Large boats	41	...		
	Canoes	699	...		
	Firewood	Mds 66	...		
				1,08,919	4,92 712
Bahraich Division ...	Sál logs	30	1,500		
	Sissu logs	18	427		
	Sál poles	770	231		
	,, sleepers	18,379	24,505		
				18,504	26,663
Gonda ditto ...	Sál poles	226	678		
	Sál koros	739	739		
				965	1,417
Gorakhpur ditto ...	Sál ballas	1,006	2,018		
	,, koros	17	17		
	,, golas	85	170		
	,, sleepers	11,943	15,924		
	,, scantlings ...	3,374	875		
	,, pieces	3,695	14,780		
	,, offcuts	9,413	18,826		
	Boats	1	...		
				29,536	52,608
Pilibhit ditto ...	Canoes	3	.	3	
In transit ...	Large boats ...	25	...	28	
	Canoes	3	...		
		...	...		...
	Total ...			380,538 and Mds. 66	633,842
Received from the Forests in Sale Depôts.					
Sál logs		4,229	208,114		
Asna logs		216	13,822		
Sissu logs		435	9,439		
Sundri		4	85		
Dhamin logs		4	82		
Sál poles		176	3,126		
Miscellaneous		240	298		
Sál sleepers		61,895	83,100		
				67,199	318,066

ANNUAL FORM No. 62—(PRESCRIBED)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1883-84— (continued).

Particulars.			No or quantity	Cubic feet	Total of each head: No or quantity	Total of each head: Cubic feet
Received from the Forests and sold "locally"						
Sál logs			30	456		
„ hollow logs			13	208		
„ scantlings			400	16		
Asna scantlings			946	946		
Sál planks			10	10		
„ poles			18	18		
Dhao axles			163	163		
Sál karrie			33	33		
„ props posts, koros, &c.			211	211		
Kusum timber			2	16		
Sál stumps			440	440		
„ pieces of scantlings			326	500		
Firewood maunds			410	...		
Confiscated and drift timber			2,117	7,382		
„ charcoal, maunds			45	...		
					4,709 455	10 543 maunds
Received from the Forests in Depôts other than Sale Depôts						
Sál logs.	Selection fellings	2,537 =	1,22 894			
	„ felling pieces,	743 =	7,744			
	Crooked trees	30,476 =	10,20,245			
	„ pieces	1,369 =	15,488			
	River logs	4 =	193		37,037	12,41,860
	Bahraich fellings	1,903 =	75,296			
		37,037 =	12 41,860			
Asna logs kheri fellings		4 259 =	2,72 608		4,259	2,72,608
Sissu logs differend in measurement in Bahraich,					..	50
Sál poles, Bahraich fellings					107	2,911
Miscellaneous poles, Kheri fellings					240	298
Canoes	Hollow trees, Kheri		126		127	...
	River		1			
Firewood,	Gorakhpur, mds		23,390		29,240	maunds
	Pilibhit, mds.		5,850			
					41,770 29,240	15,17,727 maunds
Received by Conversion						
Sál scantlings.	Forest	95 =	1,045			
	Bahramghát	2,04,623 =	1,36,701			
		2,04 718 =	1,37,746		204,718	1,37,746
Sál sleepers	Forest	3,68 802 =	5,05,387			
	Bahramghat	34,645 =	52 845			
		4,03,447 =	5,58 232		403,447	5,58,232
Asna sleepers, forest					69,232	98 079
„ scantlings, Bahramghat					8,673	5,802
Sál planks, forest					3,200	5,784
Asna pieces, „					69	837
Dhao scantlings, Bahramghát					2	2
Sissu „ „					249	105
Dhamin „ „					30	9
Sundri „ „					33	10
Pieces of sál	Bahramghát	1,270 =	9,550			
	Forests	12,510 =	1,37 610			
	Total	13 780 =	1 47,160		13,780	1,47,160
Sal slabs, forest					188,173	1,88,173
Sál off-cuts	Forest	20,077 =	20,077		28,110	36,487
	Bahramghát	8 033 =	16,410		171	stacks.
	Total	28,110 =	36,487		2,820	maunds.
Asna offcuts, Bahramghát					137	78
„ pieces, „					126	1,258
Sissu ditto, „					3	43
Sal odds and ends, forest					199	1,632
„ signal posts, Kheri					23	511
					920,204 2,820 171	1 181,548 maunds. stacks

ANNUAL FORM No. 62—(PRESCRIBED)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1883-84—(continued).

Particulars.	No or quantity	Cubic feet	Total of each head: No or quantity.	Total of each head: Cubic feet.
Received by transfer from Sale Depôt.				
Sál scantlings, (Lucknow Depôt)	287	3,642		
" " (Kheri Division)	26	12		
" offcuts, (Lucknow Depôt)	2,490	Maunds		
Large boats, (Kheri Division)	36	...		
Canoes (Ditto)	3	...		
			352 2,490	3 654 maunds
Received by transfer from Forest Division.				
Large boats, { In transit 25	26	...	...	
Large boats, { Kheri 1				
Canoes ... { In transit 8	8	...	34	
Canoes ... { Bahraich 5				
Total ...			10,34,268 35,005 171	32,31,538 maunds stacks.
GRAND TOTAL ...			13,64,805 35,071 171	36,65,380 maunds stacks
Removed by purchasers from Sale Depôt.				
Sál logs	9	484		
Asna logs	112	7,256		
Sissu logs	115	2 723		
Sál scantling	1,15,533	61,566		
" sleepers	1,01,060	1,40,389		
Sissu scantlings	4	1		
Asna scantlings	8,859	5,925		
Pieces of sal logs	1,264	9,805		
" asna logs	126	1,258		
" sissu logs	3	43		
Sál offcuts, { No.	8,033			
Sál offcuts, { Stacks	171	16,410		
Sál offcuts, { Maunds	330			
Asna logs	137	78		
Sál poles	44	847		
Miscellaneous poles	285	498		
Sál scantlings (Lucknow Depôt)	292	3,600		
Sál off cuts (ditto) ... Maunds ...	2,490	...		
Total ... { No			2,36,276	2,49,833
Total ... { Stacks			171	stacks
Total ... { Maunds			2,820	maunds.
Removed by purchasers from Forest Depôts other than sale Depôt				
Sal scantlings ... 258 =264	258	264		
Sal sleepers { Kheri ... 2,24,612 =3,09,277	2,37,639	3,22,159		
Sal sleepers { Bahraich ... 13,027 =19,882				
2,37,639 =3,22,159				
Asna sleepers, Kheri	9,572	13,560		
Sál planking, ditto	2 080	4,000		
" slabs, ditto	1,154	1 154		
" offcuts, Bahraich	20,077	20,077		
" odds and ends	192	1,632		
" ballas, Gorakhpur	769	1,538		
" golas, ditto	3	6		
" koros, ...	4	4		
Firewood, { Pilibhit	28,390	Maunds.		
Firewood, { Gorakhpur				
Canoes of hollow trees, Kheri	21	...		
			2,71,776 28,390	3,64,394 maunds
Sold from forest "locally"				
Sál logs	30	456		
" hollow logs	13	208		
" scantlings	400	160		
Asna scantlings	946	946		
Sál planks	10	10		
" poles	18	18		
Dhao axles	163	163		
Sál karries	33	33		
" preps, koros, &c.	211	211		
Kusum timber	2	16		
Sál stumps	440	440		

ANNUAL FORM No. 62—(PRESCRIBED)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1883-84—(continued.)

Particulars.			No or quantity.	Cubic feet.	Total of each head. No or quantity.	Total of each head. Cubic feet.
Sold from forest "locally"—(concluded.)						
Sál pieces of scantlings ...	...	...	326	500		
Firewood, maunds ...	...	...	410	..		
Confiscated and waif timber	...	...	117	7,382		
" charcoal, maunds	...	...	45	...		
					4,709	10,543
					455	Maunds.
Converted in Depot.						
Sál logs... Bahraich ...	1,938 =	76,796	37,561	1 407,830		
Kheri ...	31,909 =	11,13,152				
Bahramghát ...	4,414 =	2,17,882				
	37,561 =	14,07,830				
Asna logs, Bahramghát ...	132 =	8,412	4,533	2,85,191		
Kheri ...	4,401 =	2,76,779				
	4,533 =	2,85,191				
Sal pieces, Kheri ...	...	...	15,384	169 294		
Asna pieces " ...	...	...	151	1,812		
Sissu logs, Bahrámghát ...	...	...	15	372		
Sundri log " ...	...	...	1	16		
Dhamin log " ...	...	...	1	15		
Sal poles ...	...	...	44	793		
" scantlings ...	...	...	11 074	10,739		
" sleepers ...	...	...	1,256	2,652		
Asna scantlings ...	...	...	610	768		
					70,630	1,879,412
Lost or written off as useless						
Sissu logs, Bahraich ...	3 =	24	3	477		
Kheri, difference in measurement ...	0 =	453				
	3 =	477				
Sál poles, Bahraich ...	...	...	8	16		
" karris, Kheri ...	...	...	100	150		
Canoes ...	...	...	58	...		
Firewood, maunds ...	..	...	66	...		
					169	643
					66	Maunds
Used by the Department.						
Sissu logs (Kheri)	...	...	3	64		
Sál scantlings, Kheri ...	26 =	12	13,613	7,304		
Bahramghát ..	13,587 =	7,292				
	13,613 =	7,304				
Asna scantlings, Bahramghat	...	...	1	3		
Sissu " "	...	...	62	44		
Dhao " ...	...	...	2	2		
Sal pieces	...	...	6	45		
" planks, Kheri ...	...	...	373	373		
" slabs	...	...	3,087	6,037		
" karris	...	...	58	81		
Miscellaneous poles ...	...	...	108	219		
Sal poles	...	...	226	678		
" koros	...	...	739	749		
					18,223	15,649
Transferred to Sale Depot						
Sál scantlings, Lucknow depot	...	...	287	3,642		
" offcuts, ditto, maunds	...	...	2,490	..		
" scantlings (Kheri) ...	...	.	26	12		
Large boats ...	...	...	37	...		
Ditto (in transit) ...	...	...	25	...		
Canoes	...	...	2	...		
Ditto	...	...	3	...		
					380	3,654
					2,490	Maunds.

ANNUAL FORM No. 62—(PRESCRIBED)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1883-84—(continued).

Particulars	No or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Sál sleepers ... (These were sent from Kheri and Bahraich to Bahramghát and entered as received from forests in sale depôt.)	61,895	83,100		
" logs ...	4,229	2,08,114		
Asna logs ...	214	13,701		
Sissu logs ...	435	9,438		
Sál poles ...	176	3,126		
Miscellaneous poles,	240	298	67,189	3,17,777
Total ...			6,69,352 171 34,231	28,41,875 stacks. maunds.
SALE DEPÔT. *Balance at close of the year.*				
Bahramghát Division. Bahramghát Depôt. Sal logs ...	171	10,058		
Sissu logs ...	474	10,194		
Bahera logs ...	1	11		
Dhao logs ...	1	14		
Tikoe log ...	1	10		
Pander log ...	1	18		
Sundri log ...	3	69		
Dhamin logs ...	3	67		
Sál scantilings ...	2,20,492	68,482		
Sál sleepers ...	7,747	10,985		
Sissu scantilings ...	273	90		
Deodar ditto ...	13	27		
Sundri ditto ...	33	10		
Dhamin	30	9		
Sál poles	107	1,646		
Miscellaneous poles ...	8	9		
Sissu stumps ...	34	290		
Large boats... ...	10	...		
Canoes	8	...		
Lucknow depôt, sál scantlings	123	190		
Bahraich Division, Dharmapur depôt, canoes ...	458	...		
			2,22,991	1,09,192
"Locally"				
Kheri ... Sál logs ...	5,043	1,18,749		
Asna logs ...	214	2,766		
Sissu logs ...	3	64		
Sál sleepers ...	1,35,178	1,84,741		
Asna sleepers ...	59,660	84,519		
Sál scantlings ...	95	1,045		
" planks	747	1,011		
" signal posts ...	23	511		
" slabs	2,24,520	2,62,058		
Large boats	72	...		
Canoes	750	...		
			4,26,305	6,55,464
Bahraich ... Sál sleepers	10,395	14,789	10,895	14,789
Gorakhpur ... Sál ballas	239	478		
" koros	13	13		
" golas	82	164		
" pieces	3,695	14,780		
" sleepers	11,943	15,924		
" scantlings ...	3,374	875		
" offcuts	9,413	18,826		
Boats	1	...		
			28,760	51,060
Pilibhít ... Firewood, maunds ...	850			
Canoes	3	...		
			3 850	maunds.
Total ...	...	...	6,95,454 850	8,23,505 maunds
GRAND TOTAL ...	...	...	13,54,805 171 35,071	36,65,380 stacks maunds.

NAINI TAL:
The 1st July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh.

FORM No. 63—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84.

Division.	Produce removed — Descriptions	Number or quantity	Amount of revenue	Amount actually received during the year.	Remarks
			Rs. a. p	Rs a. p.	
Pilibhit	Sal ridge, poles, &c. ...	191	72 5 0	...	
	" saplings	16,340	324 0 0	...	
	Sugar mill crushers	3	9 0 0		
	Miscellaneous wood	1,088	136 0 0	..	
	Royalty on carts, wheels, &c. ...	638	368 5 6	.	
	" on beds, stools, &c. ...	867	52 0 0	...	
	Dues from carpenters, &c.	375	393 0 0	...	
	Total, timber ...	19,502	1,354 10 6	1,354 10 6	
	Firewood	Mds. 37,173	2,295 2 6	...	
	Charcoal ...	" 31,820	2,690 3 6	...	
	Total, firewood and charcoal ...	Mds 68,993	4,985 6 0	4,985 6 0	
	Grazing cattle	No. 9,137	1,076 13 0	...	
	" " passing through forest,	6,604	199 15 9	...	
	Total, grazing dues ...	15,741	1,276 12 9	1,180 4 9	
	Grasses	...	477 7 10	..	
	Sal bark	Mds 828	138 0 0	...	
	Dues from shoe-makers, &c. ...	75	105 0 0	...	
	Hides and horns	819	77 8 6	...	
	Drugs, &c	...	53 10 3	..	
	Rent on cultivated land, 285 bighas 17 biswas	...	35 11 9	...	
	Total, minor produce ...	...	892 6 4	856 10 7	
	Total, revenue under II. ...	...	8,509 3 7	8,376 15 10	
Bhira Sub-Division.	Saplings	2,723	28 13 0	..	
	Poles, &c., ...	1,783	773 15 9	...	
	Wheel naves	207	51 12 0	...	
	" spokes	422	26 6 0	...	
	Harrows	12	6 0 0	...	
	Yokes, handles, &c ..	6	0 8 3	...	
	Wooden mortar sugar mills ...	612	356 3 0	...	
	Total, timber ...	5,765	1,245 10 0	1,245 10 0	
	Firewood	Mds 9,420	493 14 6	..	Rs 149 5 0 outstanding revenue
	Total, firewood ...	9,420	493 14 6	493 14 6	
	Grazing cattle	21,026	3,027 4 6	...	
	Total, grazing ..	21,026	3,027 4 6	2,877 14 6	
	Grasses	...	1,536 0 9	...	
	Reeds	...	0 8 0	...	
	Horns	...	0 14 0	...	
	Fruits	...	105 7 6	...	
	Honey and wax	...	107 14 5	...	
	Hides	...	93 12 0	...	
	Canes	...	1 6 0	...	
	Creeper	.	2 4 0	...	
	Lime	...	2 0 0	.	
	Total, minor produce ...	..	1,848 2 8	1,848 2 8	
	Total, revenue under II ...	...	6,614 15 8	6,465 9 8	
Kheri ...	Sál timber, 453	C ft. 21,603	7,062 6 3	...	
	Asna " 826	" 46,282	3,336 13 2	...	
	Sissu " 2	" 29	9 2 3	...	
	Kusum " 16	" 67	33 6 1	.	
	Jamun " 17	" 538	33 10 2		
	Total ...	C ft. 68,609	10,475 5 11	7,036 14 4	
	Sal ridge poles	No 490	1,069 0 0	.	
	Saplings	2,382	86 6 6	...	
	Hollow boats ...	38	975 0 0	...	
	Miscellaneous items ...		653 2 0	...	
	Part payment	..	2,495 4 0	..	
	Total ...	2,910	5,278 12 6	5,078 12 6	
	Total, timber ...	...	15,754 2 5	12,115 10 10	

FORM No. 63—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84—(continued.)

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realised during the year.	Remarks
			Rs. a. p.	Rs. a. p.	
Kheri ...	Firewood	Mds 7,000	184 12 0	...	
	Charcoal	" 660	127 0 0	...	
	Total, firewood and charcoal ..	7,660	127 12 0	311 12 0	
	Grazing cattle	1,25,110	11,193 3 7	10,974 14 1	
	Total, grazing	1,25,110	11 193 3 7	10,974 14 1	
	Minor produce	...	9,341 11 9	6,541 11 9	
	Total, minor produce ...	...	9,341 11 9	6,541 11 9	
	Total, revenue under II. ...	...	36,600 13 9	29,944 0 8	
Bahraich ...	Sál timber, 979 ...	C. ft. 28,196	9 293 2 5	...	
	Asna " 150 ...	" 5,836	1,014 10 0	...	
	Sissu " 3 ...	" 38	18 14 0	...	
	Tikoe " 31 ...	" 1,320	261 9 3	...	
	Asidh " 13 ...	" 452	28 4 1	...	
	Mahua " 1 ...	" 64	4 0 5	...	
	Kusum " 13 ...	" 432	52 7 1	...	
	Bahera " 1 ...	" 43	2 1 2	...	
	Sundri " 4 ...	" 137	8 8 8	...	
	Jamun " 265 ...	" 7,499	471 10 0	...	
	Tops of sál " 99 ...	" 869	215 6 11	...	
	Total " 1,559 ...	44,809	11,370 10 4	...	
	Sál timber	Nos. 16,846	1,960 7 10	...	
	" poles	" 3,604	2,655 0 0	...	
	" hollow for boats ...	" 137	1,715 0 0	...	
	Asna poles	9	4 12 0	...	
	Unreserved timber and poles ...	10,754	727 9 6	...	
	Bed stands	...	278 5 4	...	
	Wheel naves	1,082	270 8 0	...	
	Khopi (ploughing implement) ...	16	0 5 6	...	
	Country drums	16	2 0 0	...	
	Part payments	...	10,511 5 6	...	Rs. 12,996-6-8 were realized and credited as 1st instalment during the year and Rs. 3-4-9 remained unrealized at close of the year
	Total ...	32,464	18,125 5 8	...	
	Total, timber ...	...	29,496 0 0	16,496 4 7	
	Firewood	Mds. 3,134	286 2 6	...	
	Charcoal	" 2,971	587 3 6	...	
	Total, firewood and charcoal ..	6,105	873 6 0	873 6 0	
	Bamboos	923	57 11 0	...	
	Total, bamboos	923	57 11 0	57 11 0	
	Grazing of cattle	50,207	10,611 4 0	...	
	Total, grazing	50,207	10,611 4 0	10,238 9 6	
	Grasses	...	486 15 0	...	
	Fruits	...	166 0 0	...	
	Mahua flowers	...	2,701 0 0	...	
	Leaves	.	8 5 4	...	
	Hides	...	1,764 0 0	...	
	Wax and honey	...	582 0 0	...	
	Narkul	...	60 0 0	...	
	Canes	...	7 4 0	...	
	Khair pots	17,100	9,663 15 0	...	
	" part payments ...	...	11,294 0 0	...	
	" balance outstanding on 1st April, 1884.	...	115 0 0	...	Rs. 8,042-3 0 were paid in 1882-83 as part payment on account of khair manufacture. Rs. 250 are still due at close of the year.
	Other minor produce ...	...	26,848 7 6	18,556 4 6	
	Total, revenue under II. ...	...	67,886 12 6	46,222 3 7	

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84—(concluded).

Division.	Produce removed. Description.	Number or quantity	Amount of revenue	Amount actually realized during the year.	Remarks.
			Rs a p	Rs. a. p.	
Gonda ...	Sál timber ...	C. ft. 11,940	860 9 3	...	
	Asna ,, ...	,, 3,690	1,035 2 9	...	
	Tikoe ,, ...	,, 720	294 15 9	..	
	Jamun ,, ...	,, 410	71 10 11	...	
	Khair ,, ...	,, 1,160	178 11 6	...	
	Sissu ,, ...	,, 220	80 7 3	...	
	Dhao ,, ...	,, 140	14 0 0	...	
	Kusum ,, ...	,, 50	5 9 8	...	
	Miscellaneous ,, ...	,, 21,050	2 048 4 3	..	
	Total, timber ...	C ft. 39,380	4,534 7 4	4,373 10 7	
	Firewood	Mds 5,035	479 7 3	...	
	Charcoal	,, 570	59 0 0	...	
	Total, firewood and charcoal	Mds. 5,605	538 7 8	538 7 3*	
	Grazing cattle	Nos. 9,552	815 12 3		
	,, for 1882-83 ...	...	5 947 1 7	...	
	Total, grazing... ..	9,552	6 762 13 10	6,762 13 10	
	Grass	...	819 3 1	...	
	Hides	...	160 10 9	..	
	Mahua flowers, &c.	...	696 5 4	...	
	Lime	...	114 3 0	...	
	Honey and wax	...	10 0 0	...	
	Asna bark	...	12 9 0	...	
	Washing gold	...	12 0 0	...	
	Catechu	...	3,279 12 0	.	
	Total, minor produce		5,104 14 5	4,883 3 2	
	Total, revenue under II. ...	...	16,940 10 10	16,558 2 10	
Gorakhpur ...	Sál trees ...	27,147	24 263 9 2	...	
	Asna ,, ...	13,176	2,506 11 6	...	
	Jamun ,, ...	1,195	668 0 0	...	
	Mahua ,, ...	171	456 8 0	.	
	Bahera ,, ...	48	34 8 0	...	
	Harra ,, ...	7	2 12 0	...	
	Parar ,, ...	1	1 0 0	..	
	Jigna ,, ...	12	5 0 0	...	
	Pairua ,, ...	1,510	1,048 4 0		
	Khaji ,, ...	7	4 0 0	...	
	Khambhar ,, ...	2	2 8 0	...	
	Asidh ,, ...	62	36 12 0	.	
	Karua (haldu) ,, ...	1	12 0 0	...	
	Kusum mohans ,, ...	543	267 0 0	...	
	Sissu ,, ...	12	2 15 0	...	
	Miscellaneous ,, ...	4,909	536 11 0	...	
	Total, timber ...	48,803	29,848 2 8	.	Includes Rs. 2,115, received in advance.
	Under suspense account ...	...	4,268 7 4	...	
	Total ...		34,116 10 0	31,846 0 0	
	Firewood	Mds. 250,147	26,310 8 4	...	
	Charcoal	,, 200	21 0 0	...	
	Total, firewood and charcoal	,, 252,347	26,331 8 4	25,667 15 4	
	Grazing cattle	29,477	3,763 2 7	...	
	Total, grazing ...	29,477	3,763 2 7	2,287 15 9	
	Grass	...	4,701 8 5	..	
	Fruits	...	65 4 0	...	
	Hides	...	385 15 4	.	
	Total, minor produce ...	...	5,152 11 9	4,193 4 1	
	Total, revenue under II. ...	...	69,364 0 8	63,995 3 2	
	GRAND TOTAL ...	...	2,05,016 9 0	1,71,562 3 9	

NAINI TAL:
The 30th July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

APPENDIX 1 TO FORM No. 63.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing the amount realized on account of different classes of timber and other produce sold during the year 1883-84 under budget head I. (timber operations).

Division.		Description	Number or quantity sold.	Cubic feet.	Amounts realized and due on account of sales. Rs a p.	Remarks	
Bahramghat Division	Bahramghat Depôt.	Sál logs	9	484	384 6 7		
		Asna ,, ...	112	7,256	3,627 15 8		
		Sissu ,, . ..	115	2,723	1,748 7 0		
		Sal scantlings and sleepers	2,50,412	2,44,777	3,18,335 2 0	* 33,419 remaining unremoved.	
		Asna scantlings ...	8,859	5,2[illegible]5	6,419 11 1		
		Sissu ,, ...	4	1	1 5 4	Total revenue under head I. ...	Rs a p. 3,44,436 12 9
		Sál pieces of logs .	1,264	9 505	3,221 6 9	Deduct amount due, but not realized during the year.	14,803 13 1
		Asna ditto ..	126	1,258	422 0 0		3,29,632 15 0
		Sissu ditto ...	3	43	60 13 7	Add amount realized on account of former years.	11,710 15 0
		Sal offcuts, Maunds ..	330	16,410	5,955 2 0	Deduct amount of value of sleepers taken out of March's account to be credited in 1884-85, as per G O No $\frac{253}{146-9}$ of 25th June, 1884	3,41,343 14 9
		Sal offcuts, Number ...	6,083				
		Sal offcuts, Stocks ..	171				
		Asna ,, ...	137	78	16 0 0		24,812 4 0
		Sál poles	44	847	1,270 6 6	1 Item for 24 225 0 0 (Rs a p); 2 Ditto 587 4 0 (Rs a p); Rs a p 24,812 4 0	
		Miscellaneous poles ..	285	498	59 0 0		
	Lucknow Depôt.	Sál scantlings ..	292	3,600	1,971 14 11		24,812 4 0
		,, offcuts, maunds	2,490	..	1,343 1 4	Total shown as revenue on account of sales under budget head I.	3,16,531 10 8
		Total ... Number .	2,69,695				
		Total ... Stock ..	171	2,92,705	3,44 436 12 9		
		Total ... Maunds .	2,820				
	Kheri	Sál sleepers ..	2,24,612	3,08,277	3,96,237 15 11	* Total revenue under head I	4,07 511 0 5
		Asna ,, ...	9,572	13,560		Deduct amount of Rs 47,986-4-0 taken out of March's accounts and added to the revenue of 1884-85, as per G. O No. $\frac{253}{146-9}$ of 25th June, 1884.	47,986 4 0
		Sál planks ..	2,089	4,000	10,000 0 0	Deduct value of 154 285 sleepers for which part payment has been received from Major Gracy, Rs 1,20,000, but not removed (valued @ Rs 1-5-4 a sleeper after deducting Rs 1,20,000)	3,59,524 12 5
		,, scantlings ...	258	264	594 3 3		85,753 0 0
		,, slabs	1,154	1,154	40 7 0		
		Old and broken boats and pieces thereof.	25	...	536 6 3		
		Total ...	2 37,701	3,21,255	4,07,511 0 5	Total shown as revenue under head I.	2,73,771 12 [illegible]
	Bahraich.	Sál sleepers ..	13,027	19,882	60,519 12 0	* Total revenue under head I.	62,988 10 5
		,, offcuts ..	20,077	20,077	2,085 0 0	Deduct amount taken out of accounts for March and added to the revenue of the year 1884-85	35,838 12 6
		,, slabs	199	1,632	383 14 4		
		Total ..	33,303	41,591	62,988 10 4	Total shown as revenue under head I.	27,149 14 4

* *N B*—45,520 sleepers of Kheri and 16,375 sleepers of Bahraich were transferred to Bahramghát; of these the value of 16,645 sleepers of Bahraich and 42,435 of Kheri had been credited in the accounts of Kheri and Bahraich Divisions, though the stock returns show that they were sold from Bahramghát Division and written off the stock list of that division.

APPENDIX I. TO FORM No. 63.

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Statement showing the account realized on account of different classes of timber and other produce sold during the year 1883-84, *under budget head* (*timber operations*).

Division.	Descriptions.	Number or quantity sold.	Cubic feet	Amounted to realised and due on account of sales.	Remarks.
				Rs. a. p.	
Gonda Division.	Sál logs	80	456	274 9 7	
	„ scantlings ...	400	160	399 12 9	
	„ planks	10	10	10 0 0	
	Asna scantlings ...	946	946	1,655 15 0	
	Sál poles	18	18	6 3 6	
	„ hollow logs ...	13	208	104 0 0	
	„ props and posts ...	55	55	35 8 0	
	„ pieces from cutting,	3[illegible]6	500	291 4 8	
	Dhao axles	163	163	47 8 0	
	Kusum timber ...	2	16	8 0 0	
	Sál koros	56	56	15 1 0	
	Firewood maunds ...	410	...	28 4 0	
	Sál karies	33	33	30 4 0	
	„ stumps	440	440	22 8 0	
	„ props and posts ...	100	100	30 0 0	
	Total ... Number ...	2,592	3,161	2,958 14 6	Total shown as revenue under head I
	Total ... Maunds ...	410	...	...	
Gorakhpur Division.	Sál ballas	769	1,538	135 0 9	Total revenue under head I, ... Rs. 1,159 a. 1 p. 9
	„ koros	4	4	0 4 0	Deduct amount due but not realized during the year. 8 2 0
	„ golas	3	6	0 8 0	
					1,150 8 9
	Firewood, maunds ...	23,390	...	1,023 5 0	Add amount realized on account of previous year. 12 2 6
	Total ... Number ...	776	1,548	1,159 1 9	Total shown as revenue under head I. 1,162 11 6
	Total ... Maunds ...	23,390			
Pilibhit.	Firewood, maunds ...	5,285	...	1,015 2 0	
	Total „ ...	5,285	...	1,015 2 0	Total shown as revenue under head I.
	GRAND TOTAL. Number ...	5,44,067	6,60,260	8,20,069 9 9	
	GRAND TOTAL. Maunds ...	31,905			
	GRAND TOTAL. Stocks ...	171			

Deduct amount due, but not realized during the year ...	14,812 6 1	
	8,05,257 3 8	
Add amount realized on account of former year ...	11,723 1 9	
	8,16,980 5 5	
Deduct amounts taken out of March's accounts and added to the revenue of 1884-85 as per G. O. No. $\frac{252}{146-9}$, of 25th June, 1884, to Comptroller-General.	1,08,637 4 0	
1. Item ... ... Rs. 1,08,050 a. 0 p. 0		
2. Item 587 4 0		
1,08,637 4 0	7,08,343 1 5	
Deduct value of sleepers in Kheri for which part payment has been received from Major Gracy, but not removed.	85,753 0 0	
Total shown as revenue under head I., as per Comptroller-General's summary of revenue for the year ending 31st March, 1884.	6,22,590 1 5	

NAINI TAL:
The 30th July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX II. TO FORM No 63—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Statement showing the amount realized on account of different classes of timber and other produce sold during the year 1883-84 under budget head III.

Division.	Description.	Number or quantity sold.	Cubic feet.	Amount realized and due on account of sale.	Remarks
				Rs. a p	
Kheri ...	Drift timber	1,574	6,296	1,489 11 6	
	Total ...	1,574	6,296	1,489 11 6	Total, shown as revenue.
Bahraich ..	Contract for drift timber of river Gogra for 1882-83.	...	...	250 0 0	
	Ditto ditto for 1883-84 ...	...	...	1,700 0 0	
	Ditto of river Rapti for 1883-84.	...	...	110 0 0	
	Total ...	...	...	2,060 0 0	Ditto . ditto.
Gonda ..	Drift and confiscated timber ...	456	912	438 6 3	
	Charcoal . .	Mds. 45	. .		
	Total ...	456 Mds 45	912	438 6 3	Ditto ditto
Gorakhpur...	Contract for drift and waif wood,		...	305 0 0	Total revenue, Rs. a. p 332-6-0 Deduct amount outstanding, 62-8-0
	Drift timber	17	34	27 6 0	
	Total ...	17	34	332 6 0	Total shown as revenue ... 269-14-0
Pilibhit ..	Drift sissu pieces	70	140	51 9 6	
	Total ...	70	140	51 9 6	Total shown as revenue.
	GRAND TOTAL ...	2,117	7,382	4,372 1 3	
	Deduct amount due, but not realized during the year,	...	...	62 8 0	
	Total shown as revenue under head III.	...	...	4,309 9 3	

NAINI TAL:
The 30th July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle

FORM No. 64.—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments during the year 1883-84.

Name of Department.	Particulars of supplies.	Amount supplied.	Rate. At	Rate. Per	Amount of revenue. Due	Amount of revenue. Received	Amount of revenue. Outstanding.	Cost of Forest Department. Timber expenses under A I	Cost of Forest Department. Quota of all other expenses chargeable against timber, &c.	Cost of Forest Department. Total	Comparison of revenue and expenditure. Surplus	Comparison of revenue and expenditure. Deficit.	Remarks.
Bahrdinghat Division		C ft.	Rs. a p	C ft.	Rs	Rs	Rs.	Rs.	Rs.	Rs.	Rs	Rs	
Public Works Department ..	Sál scantlings ..	10,904	2 9 3	...	28,123	27,716	407						
Ditto ditto ..	Asna ditto ..	2,886	1 8 0	...	4,332	4,314	18						
Ditto ditto ...	Sál logs ..	95	1 9 0	...	142	142	.						
Ditto ditto .	Asna logs ..	740	0 12 0	..	555	555	...						
State Railway Department .	Sal sleepers ..	86,791	0 15 8	...	84,894	83,607	1,287						
Ditto ditto ..	" poles ...	689	1 8 0	...	1,034	1,034	...						
Irrigation Department ..	" scantlings ...	2,477	1 14 1	...	4,661	4,661	...	49,072	3,685	52,757	86,978	..	
Jail Department ...	" ditto ..	1,856	2 4 9	...	4 262	4,262	...						
Ditto ...	Asna ditto ..	995	1 8 0	...	1,493	1,493	...						
Agricultural Department	Sal ditto ..	41	1 8 0	..	60	51	9						
Ordnance ditto ..	" ditto ...	2,025	1 15 5	...	3,978	3,978	...						
Military ditto ...	" ditto .	1,862	2 6 5	...	4,476	4,476	.						
Postal ditto ...	" ditto ...	673	2 0 0	..	1,348	824	524						
Opium ditto ..	" planks ..	200	1 14 2	...	377	377							
Kheri Division	Total c ft. ...	112,234			1,39,735	1 37,490	2,245	49,072	3,685	52,757	86,978		
Public Works Department ..	Sál sleepers, c. ft. ..	240	1 2 0	.	270	270	...						
President, Local Committee ..	" ditto " ...	233	1 2 0	.	262	262	.						
Jail Department	" " scantlings " ...	264	2 10 0	..	694	694							
State Railway Department ...	" " timber " ...	4,000	2 8 0	..	10,000	10,000	...	1,11,894	7,451	1,19,345	1,39,218		Rs 1,20 000 has been received in part payment on account of 154,985 sleepers struck out from stock but not removed.
Ditto ditto ...	" sleepers No. ..	45,000	2 4 0	Sleeper	56 087	*56,087	.						
Ditto ditto ...	" ditto No. ...	10,000	1 14 0	...	18,750	18,750							
Ditto ditto ...	" ditto No	30,000	1 12 0	...	52,500	52,500							
Ditto ditto	" ditto No ...	.	..	.	1,20,000	1,20,000	...						
Bahraich Division	Total, { No .. / C ft ..	85,000 / 4,737	..	..	2,58,563	2,58,563	...	1,11,894	7,451	1,19,345	1,39,218	...	† Rs. 1,01,250 for 45,000 sleepers apportioned to different divisions and that Rs. 56,087 is the share of the Kheri Division.
State Railway Department .	Sál sleepers ..	13 027	1 14 3	sleeper	24,681	24,681		9,156	500	9,656	15,025	...	
Gonda Division	Total No. ..	13,027		...	24,681	24 681		9,156	500	9,656	15,025	.	
Public Works Department ...	Asna scantlings ...	946	1 12 0	C ft.	1,656	1,656	..	2,551	...	2,551	...	495	
Ditto ditto .	Sál ditto ..	160	2 8 0	.	400	400	...						
Pilibhit Division.	Total c. ft. ..	1,106	...		2,056	2,056	..	2,551	...	2,551		495	
State Railway Department ...	Firewood, mds. .	5,000	29 0 0	100 mds	1,000	1,000	...	1,593	.	1,093	...	593	
	Total, mds. ...	5,000	...	..	1,000	1,000	...	1,593	.	1,593	.	593	
	GRAND TOTAL, { No. / C. ft. / Mds }	98,037 / 118,077 / 5,000	..	...	4,26,035	4,23,790	2,245	1,74,266	11,636	1,85,902	2,40,133	...	

NAINI TAL
The 30th July, 1884

E WOOD, CAPTAIN,
Constr. of Forests, N-W P and Oudh, Oudh Circle

FORM No. 65—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1883-84.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.
			Rs.			Rs.		Rs.
Sál logs	364	29,310	15,232	171	10,058	7,587		
Asna logs	28	1,846	577	...	...	...		
Sissu logs	169	3,854	1,927	474	10,198	5,099		
Bahera logs	1	11	5	1	11	5		
Dhow logs	1	14	7	1	14	7		
Tikoe logs	1	10	5	1	10	5		
Pander logs	1	18	9	1	18	9		
Sundri logs	...	...	...	3	69	35		
Dhamin logs	.	...	...	3	67	34		
Sál scantlings ...	156,776	15,032	11,274	2,20,492	68,482	51,361		
Sál sleepers	18,523	18,031	13,523	7,747	10,985	10,985		
Sál scantlings (Lucknow Depôt).	128	148	113	123	190	131		
Asna scantlings ...	797	194	97	...	...	...		
Deodar ditto ...	13	27	20	13	27	20		
Sissu ditto ...	90	39	29	273	99	74		
Sissu stumps ...	34	290	34	34	290	34		
Sundri scantlings ...	...	...	...	33	10	8		
Dhamin ditto ...	...	...	...	30	9	7		
Miscellaneous poles ...	161	618	30	8	9	2		
Sál poles	19		4	107	1,646	823		
Large boats	16	...	8,000	10	...	5,000		
Canoes (Dharmapur, Bahraich.)	458	...	9,160	458	...	9,160		
Canoes	2	...	40	8	...	160		
Total ...	172,584	60,442	60,086	229,991	102,192	90,546	30,460	...

NAINI TAL:
The 30th June, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

FORM No. 65A.—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Abstract showing the value of timber and other produce at Depôts other than Sale Depôt during the year 1883-84.

Description of timber.	On hand at commencement of the year.			Balance at close of the year.			Difference in value.	
	Number.	Cubic feet.	Value.	Number	Cubic feet.	Value.	In favor of the year.	Against the year.
			Rs.			Rs.	Rs.	
Sál logs	8,256	306,565	1,53,282	3,043	118,749	59,375		
Asna logs	652	21,613	2,709	214	2,766	346		
Sissu logs	332	9,993	2,498	3	64	16		
Sál sleepers	78,248	115,326	1,15,326	157,516	215,454	2,15,456		
Sál scantlings ...	3,652	1,139	1,139	3,469	1,920	1,920		
Sál karis	153	231	231	...	...	...		
Sál offcuts	9,413	12,826	2,353	9,413	12,826	2,353		
Sál poles	303	909	74	...	...	...		
Sál pieces of logs ...	3,695	14,780	11,085	3,695	14,780	11,085		
Sál „ or slabs ...	40,538	81,076	5,067	224,520	262,058	16,379		
Sál ballas	1,008	2,016	200	239	478	48		
Sál koros	756	756	145	13	13	3		
Sál goias	85	170	18	82	164	17		
Asna sleepers ...	...	...	...	59,660	84,519	42,259		
Sál planks	...	...	...	747	1,911	1,011		
Sál signal posts ...	...	...	...	23	511	511		
Firewood ... Mds.	66	...	7	850	...	102		
Large boats ...	66	...	25,000	72	...	26,400		
Canoes	706	...	16,120	762	...	19,050		
Total ... Number ...	147,863	573,390	3,35,254	466,471	721,313	3,96,331	61,077	
Total ... Maunds ...	66	...	...	850	maunds			

NAINI TAL:
The 1st July, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

FORM No 65B—(SUGGESTED)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Abstract showing the value of live and dead stock for the year 1883-84

Description of live and dead stock	On hand at the commencement of the year		On hand at the close of the year		Difference in value		Remarks.
	Number	Value	Number	Value	In favor of the year	Against the year	
DIRECTION DIVISION		Rs		Rs.	Rs		
Dead stock							
3 Tools	1	1	1	1			
4 Office furniture ...	56	151	56	151			
5 Tents and equipages ...	4	200	5	280			
7 Miscellaneous .. .	4	4	4	4			
Total .	65	356	66	436	80	..	
PILIBHIT DIVISION							
Live stock							
Elephant	1	1,800	1	1,800			
Bullocks	4	160	4	160			
Dead stock							
1 Surveying and other instruments .	22	16	22	16			
2 Machinery .	2	31	2	31			
3 Tools	119	62	179	107			
4 Office furniture	11	62	11	62			
5 Tents and equipages ..	9	120	2	70			
7 Miscellaneous . .	314	589	374	744			
Country carts . ..	2	80	2	80			
Buildings .. .	8	7,875	8	7,875			
Total .	486	10,795	605	10,945	150	...	
BHIRA SUB DIVISION							
Live stock							
Bullocks	4	160	2	80			
Dead stock							
1 Surveying and other instruments ..	41	89	41	89			
3 Tools	81	49	94	78			
4 Office furniture . ..	37	94	48	94			
5 Tents and equipages ..	4	190	5	190			
6 Building materials, small stores and house fittings	197	412	189	412			
7 Miscellaneous	58	163	50	163			
Country carts	2	80	2	80			
Buildings	6	10,050	8	11 044			
Total .	430	11,287	493	12,230	943	..	
KHERI DIVISION							
Live stock							
Elephants ..	2	4,800	4	8,500			
Bullocks	6	150	5	125			
Buffaloes	4	32	5	40			
Dead stock							
1 Surveying and other instruments .	9	748	9	748			
3 Tools .	2,664	2 137	2,163	1,658			
4 Office furniture	352	989	323	972			
5 Tents and equipages ...	12	312	9	803			
6 Building materials, small stores and house fittings	6,980	1,577	4,942	1,589			
7 Miscellaneous	1,044	1,336	1,019	1,280			
Country carts	16	280	9	158			
Buildings	10	31,535	10	31 535			
Total ..	11,079	43,896	7,798	47,358	3,457	...	

FORM No. 65B.—(SUGGESTED.)

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Abstract showing the value of live and dead stock for the year 1883-84—(concluded.)

Description of live and dead stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value	In favor of the year.	Against the year.	
BAHRAMGHAT DIVISION.		Rs.		Rs.	Rs.		
Live stock.							
Buffaloes	8	80	9	90			
Dead stock.							
1 Surveying and other instruments ...	49	121	49	121			
2 Machinery	24	27,000	26	38,200			
3 Tools	854	1,500	899	1,832			
4 Office furniture	80	371	82	400			
6 Building materials, small stores and house fittings.	6	16	6	16			
7 Miscellaneous	...	100	...	125			
Timber transport carts	2	250	2	250			
Country carts	8	110	10	125			
Buildings	2	10,000	2	10,000			
Total ...	1,013	39,548	1,085	51,159	11,611	...	
BAHRAICH DIVISION.							
Live stock.							
Elephant	1	2,600	1	2,600			
Buffaloes	1	10	...	...			
Dead stock.							
1 Surveying and other instruments ...	45	208	45	216			
3 Tools	997	335	1,002	339			
4 Office furniture	148	497	148	507			
5 Tents and equipages	37	431	33	355			
5 Building materials, small stores and house fittings.	237	154	207	149			
7 Miscellaneous	549	64	555	72			
Buildings	14	22,571	15	22,924			
Total ...	2,044	26,873	2,026	27,182	309	...	
GONDA DIVISION.							
Live stock.							
Elephant	1	1,200	1	1,000			
Buffaloes	3	24	2	14			
Dead stock.							
1 Surveying and other intruments ...	1	20	1	20			
3 Tools	306	240	306	240			
4 Office furniture	45	250	45	250			
5 Tents and equipage	3	175	3	175			
6 Building materials, small stores and house fittings.	10	4	10	4			
7 Miscellaneous	2	2	2	2			
Buildings	2	4,000	2	4,000			
Total ...	373	5,915	370	5,705	...	210	
GORAKHPUR DIVISION.							
Live stock.							
Elephant	1	1,200	1	1,100			
Dead stock.							
1 Surveying and other instruments ...	11	93	11	93			
2 Machinery	1	150	1	150			
3 Tools	142	178	177	189			
4 Office furniture	20,109	629	20,309	775			
5 Tents and equipages	5	400	5	400			
7 Miscellaneous	75	77	129	209			
Buildings	6	5,800	8	7,800			
Total ...	20,350	8,527	20,641	12,716	4,189	...	
GRAND TOTAL ...	35,840	1,47,197	33,030	1,67,726	20,529	...	

NAINI TAL:
The 30th June, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

APPENDICES.

APPENDIX A.

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Annual plan of operations for 1883-84.

	Sanctioned plans.	Rupees.	How far carried out.
	PILIBHIT DIVISION.		
A.I.b.	Thinnings in the Kali Lar block,	2,000	This was not proposed when plan of works was submitted; of the sanctioned amount Rs. 1,593 were spent, the block yielding 5,650 maunds of firewood; three wells were made for future operations, one in course of construction; and creepers cut.
A.VII.a.	Roads, 14½ miles at Rs. 60 ...	870	Only five miles two furlongs were made during the year at a cost of Rs 72 per mile, or Rs. 12 in excess of sanctioned rate. The work was started too late in the season, as Mr. Ponsonby's time was occupied in other works, and the subordinate in charge did not carry out the orders of the divisional officer.
...	Repairs of roads	472	Rs. 465 were spent on annual repairs of divisional roads and lines in the closed block.
A.VII.b.	Buildings	560	The work on Nachni rest-house was not commenced during the year, owing to want of proper supervision, the Ranger being very sick.
...	Re-roofing of Mahofe and Mustafabad rest-houses.	120	This work was not commenced owing to there being no Ranger in the division.
A.VII.c.	Nachni well	315	Ditto ditto.
A.VIII.a.	Demarcation	500	Nearly two miles done; abandoned owing to sufficient funds not being available, as the money was required for thinning operations, and other important works.
A.VIII.e.	Fire paths 10 miles at Rs. 40 ...	400	This work was not commenced for want of supervision.
A.VIII.e.	Fire conservancy	740	Only Rs. 494 spent; as the reserved block was burnt early in the season, therefore fewer watchers were required.
	BHIRA SUB-DIVISION.		
A.VII.a.	Roads and bridges; 14 miles and 4 furlongs at Rs. 80.	1,160	Road from Palhanpur to Gola, 11 miles, finished at a cost of Rs. 857-2-6, or at Rs. 75-3-4 per mile: but 3 miles 4 furlongs not taken in hand for want of funds, as Rs. 500 had to be paid on account of compensation in Shâhjahânpur, Rs. 86-14-0 spent in repairs of old roads.
...	Culvert over the Ool at Singha ghât.	50	Not taken in hand for want of funds.
A.VII.b.	Buildings	1,000	Third class rest-houses at Palhanpur and Morena finished at a cost of Rs. 994-2-6.
A.VII.c.	Wells	...	Wells at Palhanpur and Morena could not be completed for want of good bricks, Rs. 248-12-6 were spent on the former and Rs. 141-2-0 on the latter, since completed.
A.VIII a,	Demarcation; 20 miles of ditching, at Rs. 25 per mile.	500	19½ miles done at a cost of Rs. 487-8-0, the balance of half mile abandoned for want of funds.
A.VIII.e.	Fire conservancy, dagbeling 20 miles, at Rs. 6 per mile.	120	Nine miles two furlongs done at a cost of Rs. 49-12-0; 10 miles 4 furlongs of fire-path made at a cost of Rs. 337, not proposed in working plan, but found necessary for inspection purposes.
	KHERI DIVISION.		
A.I.a.	Felling and logging 2,500 ...	...	Done.
...	Selected sâl trees, carting 3,500 logs to depôt.	2,05,000	Done: 3,326 logs carted to depôt, being the outturn.
...	Rafting logs to Bahramghât ...	...	Owing to light rains only 2,725 could be sent to depôt; some logs cut up for Pilibhit railway.
...	Selecting, marking and felling 30,124 sâl and 4,902 asna trees for sleepers; sawing 300,000 sleepers for railways.	...	Done: 410,393 sleepers were sawn, of which 327,202 were passed and paid for the remainder classed as rejections (though serviceable, were not paid for, some not being of the size some unsound).
...	Rafting to Fyzabad and Bahrâmghât, carting to Shâhjahânpur and Pilibhit, railing to Bareilly and Cawnpore.	...	Fyzabad ... ... No. 46,652 sleepers. Bahrâmghât ... ... „ 4[illegible],795 „ Pilibhit ... ... „ 5,000 „ Bareilly ... ... „ 68,988 „ Cawnpore ... ... „ 12,477 „ 174,912
A.VII.a.	Clearing and repairing all existing roads and lines, also Nepal boundary lines,* in all 253 miles: reconstructing bridge of boats over the Sarda, making bridge over the Scholi river at Dudua and repairing all existing bridges.	7,500	Done.
A.VII.b.	Constructing a 1st class rest-house at Salukapur.	...	Nearly completed.

* Paid for from Imperial funds.

APPENDIX A

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Annual plan of operations for 1883-84—(continued).

	Sanctioned plans.	Rupees	How far carried out.
	KHERI DIVISION—(*concluded*)		
	Annual repairs to all other existing buildings	...	Done
	Constructing four new wells	...	One well completed Three other wells are in course of construction.
A VIII *d*.	Transplanting of Sissu seedlings	4,156	Large well at Dudna nearly completed 238 seedlings have been planted
	Protecting 64½ square miles of closed blocks against fire and cattle grazing	...	All saved from fire up to end of March, 1884; but 29½ square miles have been burnt since.
	Creeper cutting in the Khairigarh sub division.	...	Creepers have been cut in two blocks, about 5¾ square miles
	BAHRÁMGHÁT DEPÔT		
A B	Timber operations ...	...	4,860 logs were landed in the depôt at a cost of about four annas per log
	Execution of indents from Public Departments	...	The balance of indents at commencement of the year was ... 4,733 Received during the year .. 51,479 Total ... 56,212 Executed and supplied ... . 45 541 Cancelled . ... 3,216 Leaving a balance of ... ... 7,455 Of which ... ... 2,843 had been supplied in May
	Sleeper operations	...	34,645 sleepers were sawn at a cost of about three annas a cubic foot or four annas apiece Two new tiled sheds for preservation, the existing depôt roads were repaired.
	BAHRAICH DIVISION		
A I *a*	Carting to Bahrámghát all good sleepers from the previous year's working.	...	17,198 sleepers were carted 2 031 balance not carted, as they were not fit for railway This carting cost Rs 4,240 or Re 0-2-11 per sleeper.
	Supplying sleepers to Bengal-North-West Railway contract for 20 000 at Pigpur		20 524 sleepers were supplied to Bengal North-West Railway, at a cost of Rs 11,946, or Re 0-9-3 per sleeper
A. VII *a*	Repairs and clearing of lines and roads, bridges, &c.	...	269 miles of roads were repaired and cleared of grass at a cost of Rs 835 10 bridges repaired at a cost of Rs 19
	Completions of Nepal boundary clearing in section VIII	.	This was done Estimate Rs 2,300, actual Rs 1,742, stubbed to a width of 30 feet over 22 miles, and widened from 20′ to 30′, over 10 miles paid for from Imperial Funds
	Making 20¼ miles of new roads in section VII	...	17½ miles completed, 3¼ miles will be done in 1884 85, estimate Rs. 60 per mile, actuals Rs 54 a mile
	Completion of 11 furlongs of the middle line of Gobbapur, section VIII	...	This was done at a cost of Rs 50 per mile.
	Making a line of three furlongs west of Sohelwa.	...	Not done for want of labor, will be done in 1884 85
	Making 22 miles of new lines east to Sohelwa.	...	10 miles completed at a cost of Rs 50 per mile, the remainder could not be carried out from difficulty in procuring labor, will be done in 1884 85
A VII *a*.	Completion of bridge near Kain nála.	...	Work proceeded with, but not completed, will be ready in May 1884
A VII *b*	Repairs of existing buildings ..	..	Done at a cost of Rs 340
	New buildings	...	Work on Guira and Bankatwa 1st class rest-houses commenced, but not completed for want of labor, it is expected that foundation work and collection of materials will be done by the end of May, 1884
A VII *c*.	Wells	.	Work on making four new wells commenced, two of these will be ready in May, 1884 and the other two will be completed in 1884-85
A. VIII *a*.	Demarcation		519 sál posts were put all along the Chakia forest boundary at a cost of Rs 174 Nothing was done in Motipur sub-division for want of labor All pillars on Nepal boundary were repaired at a cost of Rs 71
A VIII *d*.	Plantations	...	Transplanting sissu on to the Rautara plantation carried out; works on other plantations were executed
A VIII *e*	Protection of closed blocks from fire	...	Forests were protected from fire; certain additions have been made in the area of the closed forest, and works on fire-lines were executed for particulars; please see body of the report and statement No 51.

APPENDIX A.

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH,

Annual plan of operations for 1883-84—(concluded)

	Sanctioned plans	Rupees	How far carried out.
	BAHRAICH DIVISION—(*concluded*)		
A VIII *f*	Other works	...	Work of fencing compartments three and four was carried out, about 6½ miles were fenced in at a cost of Rs 243 Fencing sissu block in Lackanpur, 1 mile 1 furlong was done at a cost of Rs 45-7-0 7½ furlongs of fencing were done in Kakardari block, at a cost of Rs 32 6 6.
	GONDA DIVISION		
A I *a*	Timber operations	100	Owing to receipt of certain indents from District Engineer and Railway Department, the work was carried out on a large scale at a cost of Rs 2,551-13 6
II	Timber, &c, removed by consumers or purchasers	395	Done
III	Confiscated, drift, and waif wood,	65	Done
A VI *b.*	Feed and keep of cattle .	650	Done
c	Stores, tools and plant ...	50	Only Rs 6-9-0 spent on this
A VII *a.*	Making roads in Chandanpur block and Ramgarh forests.	1,000	Seven miles and one furlong of new road have been made in Ramgarh forest at a cost of Rs 791-4-0 Annual repairs to existing roads 43 miles and 1 furlong were carried out. Money wanted for A.VI *a.*
A.VII *b*	Buildings	500	Done
c	Wells	100	The drinking well at Chandanpur was finished
A VIII.*a.*	Demarcation	200	The work on clearing existing boundary ditches was carried out
A.VIII *d*	Plantations	500	No work on plantations was carried out. Money wanted for A I *a.*
A VIII *e*	Protection from fire ...	500	Carried out at a cost of Rs. 309-12-0.
A VIII *f*	Other works	420	Done.
	GORAKHPUR DIVISION		
A I.	Sleeper operations	10,500	Carriage of logs . . ... Rs. 213 a. 4 p. 0
	Decrease	70,600	Rafting sleepers 1,555 13 3
	Sanctioned	81,100	Cutting firewood for Railway Department. 1,439 15 10 3,509 1 1 Fresh sleeper operations were not carried for want of supervision. Money also required for Kheri A I *a.*
II	Timber and other produce removed from the forests by consumers or purchasers	1,000	Establishment kept up and works carried out at a total cost of Rs. 395-14-5.
A VI *b*	Feed and keep of cattle ...	650	Carried out at a cost of Rs 674 0 8; elephant gear, &c, was repaired hence the excess
A VI *c*	Plants, tools and instruments ...	300	Only Rs 50 were spent on belts. Purchase of tent postponed till 1884-85
A.VII *a*	Roads and bridges cutting new lines on both sides of Railway line about 5 miles, 400 Sakhwi road .. ... 200 Repairs to old roads ... 200 Making bridges over Mallao and Piau river ... 500	1,500	Postponed to 1884 85 Mr Campbell being away for three months and Ranger for six months:— Rs. a. p. Spent ... ... 48 9 3 " ... . 32 1 1 " ... ... 192 6 5 Total ... 273 0 9 Only Mallao bridge was made Rs 63 9-10
A.VII *b*	Buildings	2,500	Spent on Chaumukha and Pakri rest-houses . .
...	Repairs of rest houses; collecting material for rest-houses ...	...	Done at a cost of ... . . 142 1 0 " " " 170 3 8
A VII.*c.*	Other works; wells	500	Works on Chaumukha and Pakri wells started; since completed.
A VIII.*a*	Demarcation	500	Demarcation by Mr Nicholson and pay of establishment, costing Rs 733-9 1 Little work done in ditching as already reported.
A VIII *b*	Compensation	1,000	
A VIII *c*	Surveys and working plans ...	20	No measurements taken.
A VIII *d.*	Plantations	2,000	Done. Spent Rs 3,313-5-10.
A VIII.*e.*	Protection from fire... ...	900	Clearing fire lines, done and establishment kept up; total cost Rs 1,792-8 4
A VIII *f.*	Other works	1,400	Creeper-cutting, clearing snags, &c ... . Rs. 241 a. 3 p. 8 Thinnings in Ramgarh and Tilkonia ... ... 3,201 12 10 Establishment ... ... 736 15 4 Total ... 4,185 15 10
A.IX.*a.*	Other charges ...	100	Contingencies and carriage of machinery cost Rs 10-11-0.

NAINI TAL
The 12th August, 1884.

E WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

APPENDIX B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing existing roads and lines in the Oudh Circle up to 31st March, 1884.

Number.	Name of roads		Width.	Length in miles.		Remarks.
	From	To		Miles.	Furlongs.	
1	Mahope ...	Mainkote ...	15′	7	2	Pilibhit division.
2	Ditto ...	Bara Chandar ...	15′	6	4	
3	Ditto ...	Kurryaghat ...	15′	3	2	
4	The Jhali Koond mile ..	... ...	15′	1	...	
5	,, Mala Serpentine ...	... ...	15′	15	...	
6	,, through communication	... ...	15′	26	...	
7	,, Puranaghát line ...	... ...	15′	2	5	
8	,, Barúa Khutára line,	... ...	15′	1	5	
9	,, Zigzag south Pilibhit,	... ...	15′	4	5	
10	,, Kari Lar line ...	... ...	15′	4	3	
11	,, Jhawra Bhawra line,	... ...	15′	2	6	
12	Dhamalia ...	Chorghatta ...	15′	2	6	
13	Ditto ...	Karryaghat ...	15′	2	7	
14	Mustafabad ...	Chuka ...	15′	6	6	
15	Mulasi ...	Hardidenga ...	15′	8	2	
16	Haripur ...	Sarda ...	15′	4	...	
17	The two bits in Mahope, and Mowatpur Bojhies		15′	1	2	
18	The fire paths ...	Parallel to Mundiaghat,	8	2	6	
19	Mustafabad ...	Nachni ...	75	5	4	Incomplete.
		Total ...	...	109	1	
20	Bhira ...	Mallani ...	20′—40′	11	6	Bhira Sub-division.
21	Kishenpur ...	Bhira ...	15′—30′	6	4	3½ miles 15—3 miles 30.
22	Cart track from Phutákua boundarry pillar to Dhakachat boundary pillar.	... ...	8′	2	...	
23	Bargad chauki ...	Kishenpur ...	15′	6	...	
24	Phuta kua ...	Ditto ...	15′	5	2	
25	Kishenpur ...	Chaltua ...	15′	3	3	
26	Pipal chauki ...	Morena ...	15′	4	7	
27	Singha ..	Palhanapur ...	15′	6	3	
28	Mailani ...	Khutár ...	15′	4	...	
29	Palhanapur ...	Gola ...	15′	11	2	62 miles 3 furlongs regular road
30	Marha ...	Bargad chauki ...	15′	2	6	Fire line.
31	Ditto ...	Kuryani ...	15′	3	4	,,
32	Ditto ...	Salabatnagar ..	15′	3	1	,,
33	Ditto ...	Pipal chauki ...	15′	2	4	,,
34	Ditto ...	Singha ...	15′	2	3	,,
35	Ditto ...	Baraintu ...	15′	2	1	,,
36	Ditto ...	Nackla Darwaza ...	15′	2	...	,,
37	Ditto ...	Dawha ..	15′	3	...	,,
38	Pipal chauki ...	Singhaghat ...	15′	8	4	,,
39	Bargad chauki ...	Ditto ...	15′	5	...	,,
40	East Baraunecha ...	Serpentine ...	15′	4	...	,,
41	Marha ...	Chahbagh ...	15′	2	2	,,
42	Chultua ...	Dawha ...	15′	2	6	,,
43	Salahatnagar ...	Chaltua ...	8′	10	4	,,
44	Home block line ..	... ...	8′	1	5	,,
45	Kuryani ...	Bargad chauki ...	8′	3	5	54 miles 5 furlongs fire lines.
		Total ...	...	117	...	
46	Fort Gowri Shah ...	Bambhanpur ...	20′	4	4	Kheri Division.
47	Bilryan ..	Ramnagar ...	20′	7	4	
48	Dudua ..	Palia ...	20	5	4	
49	Sonaripur ...	Rechea well ...	18	7	...	
50	Dudua ..	Sonaripur ...	18	6	...	
51	Ditto ...	Nipal boundary ...	18	15	...	
52	Fort Gowri Shah ...	Khairigarh ...	15	3	4	
53	Ditto ..	Bhuvan Phauta ...	15	3	4	
54	Ditto ...	Salukapur ...	15	7	4	
55	Ditto ..	Karea ...	15	8	...	
56	Karia ...	Chandan chauki ...	15	11	...	
57	Ditto ...	Bhadi Tal ...	15	4	...	
58	Ditto ...	Bilryan ...	15	2	...	
59	Rechea well ...	Khairigarh Depot ...	15	2	...	
60	Ditto ... and	Bhadi ...	15	8	6	
61	Bhadi ...	Mohan ...				
62	Richea well ..	Rahta Phauta ...	15	4	...	
63	Salukapur ...	Barbatta .	15	6	4	

APPENDIX B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing existing roads and lines in the Oudh Circle, up to 31st March, 1884—(continued).

Number.	Name of roads. From	Name of roads. To	Width	Length in miles. Miles	Length in miles. Furlongs.	Remarks.
64	Bhuyan Phauté ...	Kusumbha ...	15′	2	2½	
65	Ditto ..	Rahta Phauta ...	15′	2	...	
66	Kusumbha ...	Lanki Phauta ...	15′	3	...	
67	Bilryan ...	Laudaria Tal ...	15′	2	4	
68	Sonaripur ...	Bhidowri ...	15′	11	4	
69	Mund Nochni ..	Byrampur ...	15′	7	4	
70	Rahta Phauta ..	Mohan river ...	15′	4	...	
71	Dudua ...	Salukapur ...	15′	6	4	
72	Ditto ...	Chandan chauki ...	15′	9	...	
73	Ditto ...	Sarauta ...	15′	1	4	
74	Ditto ..	Massan Khamb ...	15′	8	4	
75	Ditto ...	Suthiana ...	15′	7	...	
76	Sonaripur ..	Padri ...	15′	3	2½	
77	Chota Palia ...	Salukapur ...	15′	3	4	
78	Ditto ...	Kakraha Tal ...	15′	2	4	
79	Bhadraula ...	Bundhi ...	15′	2	6	
80	Gular chauki ..	Rajghat ...	15′	1	...	
81	Jamniha ...	Gowrhi line ...	15′	1	4	
82	Dumahani ..	Sarauta ...	15′	2	2	
83	No. 1, Sohelt and Mohan,	... ...	15′	5	2	
84	No. 2, ditto ...	... ...	15′	6	2	
85	No. 3, ditto ..	... ...	15′	8	...	
86	No 4, ditto ..	... ...	15′	4	...	
87	Suthiana ...	Chandpara ...	15′	4	...	
88	Ditto ...	Belghat ...	15′	2	4	
89	Belghat ...	Kujuria ...	15′	3	2	
90	Ditto ...	No 3 well ...	15′	2	4	
91	Sarauta ...	Phulwaria ...	15′	4	...	
92	Palia well ...	Bhadraula ...	15′	2	...	
93	Well No. 4 ...	Bankatti ...	15′	4	...	
94	Ditto No. 5 ..	Ditto ...	15′	3	...	
95	Ditto No. 6 ...	Ditto ...	15′	2	4	
		Total ...	...	239	7½	
96	Kataniaghat ...	Pillar No. 93 ...	15′	2	7	Bahraich Division.
97	Ditto ...	Ramnagar ...	15′	6	...	
98	Ditto ..	Motipur ...	20′	26	...	
99	Ditto ...	Sujauli ...	15′	8	...	
100	Sujauli ..	Nishangara ...	15′	4	2	
101	Chaparia ..	Rampurwa ...	15′	3	6	
102	Matehi ..	Tara Tal ...	15′	3	6	
103	Tara Tal ..	Rampura ..	15′	1	7	
104	Nishangara ..	Tara Tal ...	15′	2	6	
105	Ditto ..	Pillar No. 72 ...	15′	3	...	
106	Katania main line ..	Tara Tal ...	15′	2	6	
107	Nishangara ..	Dubra ...	15′	3	4	
108	Dharmapur ...	Ditto ...	15′	4	1	
109	Ditto ..	Pillar No. 72 .	15′	3	7	
110	Ditto ...	Jallia Gaurhi ...	15′	2	2	
111	Jallia Gaurhi ..	Murtiha ...	15′	2	2	
112	Ditto ..	Pillar No. 65 ...	15′	4	1	
113	Murtiha well ..	Ditto No. 65	16′	3	4	
114	Simri ..	Murtiha ...	15′	3	4	
115	Main line ..	Augan ...	15′		5	
116	Ditto ..	Ghumna Bhoru ...	15′	1	3	
117	Ditto ..	Chitlahwa ...	15′	1	1	
118	Birghat ..	Hasulia ...	15′	3	4	
119	Motipur ..	Kheria ...	15′	1	4	
120	Kheria line ..	Petraha ...	15′	3	6	
121	Bhagwanpur ..	Pillar No. 45 ...	15′	3	4	
122	Pararia ..	Ditto No 45 ...	15′	3	3	
123	Masjidia ..	Ditto No. 40 ...	15′	2	4	
124	Panpiwa ...	Parraria line ...	15′	4	...	
125	Khareneha .	Pillar No. 43 ...	15′	1	7	
126	Ditto bungalow ...	Bhada nala ...	15′	4	...	
127	Ditto ditto ..	Pararia line ...	15′	1	6	
128	Nawabganj ..	Pillar No 26 ...	15′	4	2	
129	Khairawa ..	Badedih ...	15′	2	4	
130	Middle line ..	Gulaidih ...	15′	2	3	
131	Ditto ..	Santolia ...	15′	2	4	
132	Nathaiganon ..	Forest boundary ..	15′	2	5	
133	Nathpur ..	Phul Tikra ...	15′	2	5	

APPENDIX B

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing existing roads in the Oudh Circle and lines up to 31st March, 1884—(continued.)

Number	Name of roads. From	Name of roads. To	Width.	Length in miles. Miles.	Length in miles. Furlongs.	Remarks.
134	Mygawew ...	Tokai Dih ...	15′	2	1	
135	Abdullaganj ..	Sonepur ...	15′	3	...	
136	Nawagaon ...	Sisayla ...	15′	4	...	
137	Abdullaganj ...	Bhagatpurwa ...	15′	1	5	
138	Kakardari ...	Bhartha well ...	20′	8	3	
139	Bhartha village ...	Shahpur ...	20′	3	...	
140	Shahpur ...	Mahamadpur ...	20′	2	3	
141	Mahamadpur ...	Sanharnagar ...	20′	3	5	
142	Roshanpur ...	Lachmanpur ...	20′	2	4	
143	Sankarangr ...	Dial ...	20′	3	2	
144	Ditto ...	Shahgur ...	20′	2	6	2 miles yet incomplete.
145	Mahamadpur ...	Tursama ...	20′	3	6	
146	Middle line ...	Gujpathi ...	20′	1	6	
147	Ditto ...	Tursama ...	20′	2	...	
148	Dial ...	Kakardari ...	20′	2	1	
149	Doondra ...	Block ...	10′	...	6½	
150	Ditto ..	Lachmanpur ...	15′	...	2	
151	Round the bungalow at Kakardari	...	15′	...	1	
152	Bhartha well ...	Kiranwanpurwa ..	20′	10	1	
153	Bankatwa ...	Ramnagar ...	15′	4	...	
154	Ditto ...	Cheypurwa ...	15′	4	5	1 mile yet incomplete
155	Gokal Singh ...	Koni nala ...	15′	4	6	
156	Ranipur ...	Ramnagar ...	15′	2	7	
157	Ramnagar ...	Lalpur Mehri ...	15′	3	7	
158	Chehelwa ..	Rampur ...	15′	4	6	
159	Nabinagar ...	Ditto ...	15′	3	3	
160	Ponsonbyganj ...	Gokal Singh line ...	15′	2	2	
161	Bharth ...	Ditto .	15′	7	7	
162	Bhartha Sonpur ...	Kain nala ...	15′	6	3	
163	Guira line ...	Cheypurwa line ...	15′	1	6½	
164	Cheypurwa line ...	Gandhi line ...	15′	1	1	
165	Sohelwa ...	Pillar No. 72 ...	15′	3	...	
166	North of Bulrampur forests	...	20′	5	...	
167	Sohelwa ...	Middle line ...	15′	8	7	
168	Blochkohe ...	Pillar No. 72-73 ...	15′	2	6	
169	Ditto ...	Ditto No. 75-76 ...	15′	3	6	
170	Middle line ...	Ditto No 76-77 ...	15′	1	2	
171	Motipur Kalan ...	Ditto No. 78-79 ...	15′	3	4	
172	Gabbapur khurd ...	Ditto No. 80 ...	15′	1	5	
173	Block kohwo ...	Ditto No. 80-81 ...	15′	2	6	
174	Sohelwa ...	Bhainsahi ...	15′	1	2	
175	Bhainsahi ...	Pillar No. 86 ...	15′	16	2	
176	Block Kohwa ...	Ditto No 82 ...	15′	1	6	
177	sohelwa pillar 72 ...	Line along village boundary	15′	1	2	
178	Bhainsahi ...	Hathia Roond ...	15′	6	6	
179	Pillar No 70-71 .	Outer boundary ...	15′	2	½	
180	Ditto No. 66 67 ...	Ditto ...	15′	2	6	
181	Rajea Tal ...	Pillar No 65-66 ...	15′	1	5	
182	Middle line ...	Outer boundary ...	15′	2	½	
		Total ..	...	316	3	
183	Balrampur boundary line,	...	40′	23	4	Gonda Division.
184	Barahwa ..	Foot of the hills ...	100′	2	5½	
185	Rautar ...	Changahia ..	100′	1	4	
186	Odeypur ..	To foot of the hills ...	100′	1	4	
187	Sukri	Foot of the hills ...	100′	1	4	
188	Bagahwa .	Motchra ...	100′	...	3	
189	Sukri ..	Sungarha ..	100′	...	7	
190	Kharhania ..	Bhowri sal ...	100′	...	5	
191	Chandanpur ..	Narahwa ...	15′	2	2	
192	Ditto ..	Sarni ...	15′	3	...	
193	Ditto ..	Ramnanpur ...	15′	2	5	
194	Ramgarh ...	North of Jankinagar ...	15′	2	...	
195	Jankenagar	Sujai nala ...	15′	1	4	
196	Sujai .	Manwar nadi ...	15′	3	4	
197	Ramgarh ..	Chamnai nadi ...	15′	1	3	
198	Sujai nala	Indbana ...	15′	1	2	
199	Moneypur ..	Boundary line ...	15′	1	6	
200	Ramgarh .	Untghat road ..	15′	...	6	
201	Ditto ..	Utrania road ...	15′	1	...	
		Total ...	...	53	4½	

APPENDIX B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing existing roads and lines in the Oudh Circle, up to 31st March, 1884—(concluded).

Number	Name of roads. From	Name of roads. To	Width.	Length in miles. Miles.	Length in miles. Furlongs	Remarks
202	Chawk ...	Sakhui ..	20′	8	...	Gorakhpur Division.
203	Ditto ...	Daibhar to Sukhui ...	30′	10	...	
204	Sakhui ...	Ganeshwapur ...	15′	2	...	
205	Sakhai sissu plantation...	...	15′	10	...	
206	Mudhowlia ..	Ganeshwapur ...	15′	4	...	
207	Ditto ...	Ditto ...	30′	2		
208	Ramgarh roads	...	50′	7	...	
		Total ...	...	48	2	
		GRAND TOTAL ...	...	878	0½	

Abstract of the Circle.

Description of roads.	Pilibhit. Mile.	Pilibhit. Furlong.	Bhira. Mile.	Bhira. Furlong.	Kheri. Mile.	Kheri. Furlong	Bahraich. Mile.	Bahraich. Furlong.	Gonda Mile.	Gonda Furlong.	Gorakhpur. Mile.	Gorakhpur. Furlong.	Total. Mile	Total. Furlong
Main road 100′ wide ...	...	...	...	...	...	...	.	...	9	½	...	...	9	½
" 50′ " ...	...	...	...	...	...	...	...	...	...	...	7	...	7	...
" 40′ " ...	...	...	...	...	...	...	...	...	23	4	..	...	23	4
" 30′ " ...	...	...	3	4	...	...	...	...	...	...	12	...	15	4
" 20′40″ " ...	...	...	11	6	...	...	...	...	...	...	.	...	11	6
" 20′ " ...	...	...	...	...	17	4	74	1	...	...	8	...	99	5
Cart-road 15′ " ...	106	3	83	...	194	3½	240	4	21	...	16	...	661	2½
" 18′ " ...	..	...	...	...	28	...	...	...	...	...	...	...	28	...
Path 10′ " ...	...	...	...	...	...	...	...	6½	...	...	...	...	...	6½
" 8′ " ..	2	6	18	6	...	...	...	...	...	.	...	...	21	4
Total ...	109	1	117	...	239	7½	315	3½	53	4½	43	...	878	0½

NAINI TAL,
The 1st August, 1884.

E. WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX C.

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

List of Buildings, 1883-84.

Number.	Division.	Name.	Property of	Rent when occupied per month.	Amount paid by officer during the year.	Remarks.
1	Pilibhit ...	Forest 1st class double, storied rest-house, Mustafabad.	Forest Department	...	...	
2	Ditto ...	3rd class Single do, Mahope ...	Ditto ...	...	...	
3	Ditto ...	Ditto do, do, Chorghatha ...	Ditto ...	...	...	
4	Ditto ...	Ditto do, do., Mustafabad ...	Ditto ..	...	...	
5	Ditto ...	Ditto do, do, Barahi ...	Ditto ..	...	...	
6	Ditto ...	Ditto do do., Chuka ...	Ditto ...	...	...	
7	Ditto ...	Ditto do, do, Barua Kathara ...	Ditto ..	...	...	
8	Ditto ...	Ditto do, do, Haripur ...	Ditto ...	...	...	
9	Bhiramsub-div.	Forest 1st class double storied rest-house, Gola ...	Ditto ...	...	...	
10	Ditto ...	Ditto do do., Murha ...	Ditto ..	...	...	
11	Ditto ...	3rd class single storied rest-house, Mahra...	Ditto ...	...	...	
12	Ditto ...	Ditto do, do., Kishenpur ...	Ditto ...	...	...	
13	Ditto ...	Ditto do, do, Kukra ...	Ditto ...	...	...	
14	Ditto ...	Ditto do do., Bhira ...	Ditto ...	...	...	
15	Ditto ...	Ditto do, do, Palhanapur ...	Ditto ...	...	...	
16	Ditto ...	Ditto do, do., Morena ..	Ditto ...	...	...	
17	Kheri ...	Head-quarters, Lakhimpur office and rest-house ...	Ditto ...	Rs. 25 by officers and Rs. 15 by office.	...	Rs. 110 due from Mr. Ballie, Assistant Conservator
18	Ditto ...	Forest 1st class double storied rest-house, Dudua,	Ditto ...	...	...	
19	Ditto ...	Ditto do, do., Sathiana ...	Ditto ...	...	...	
20	Ditto ...	Ditto do, do., Fort Gourishah ...	Ditto ...	...	...	
21	Ditto ...	Ditto do, do., Shitabaghát ...	Ditto ..	...	...	
22	Ditto ...	Ditto do, do., Bilrain Dih ...	Ditto ...	...	...	
23	Ditto ...	2nd class do, do., Dudua ...	Ditto ...	Ditto ...	...	
24	Ditto ...	Ditto do, do, Sonaripur ...	Ditto ...	Ditto ...	...	
25	Ditto ...	Ditto do, do., Naurangabad ...	Ditto .	Ditto ...	...	
26	Ditto ...	Ditto do, do., Bankathi ...	Ditto ...	Ditto ...	...	
27	Bahramghát,	Bahrámghát timber depôt ...	Ditto ...	Ditto ...	...	
28	Ditto ...	Ditto do, do. ...	Ditto ...	Ditto ...	...	
29	Bahraich ...	Head-quarters, Bahraich Office and rest-house ...	Ditto ...	Rs. 30 by officer and Rs 20 by office.	125 7 8	Rs. 26 2-1 due from Mr. Pinder, Assistant Conservator.
30	Ditto ...	Forest 1st class double storied rest-house Nishangara,	Ditto ..	Ditto ...	...	
31	Ditto ...	Ditto single do, Sujauli ...	Ditto ...	Ditto ..	...	
32	Ditto ...	Ditto do, do, Motipur ...	Ditto ...	Ditto ..	...	
33	Ditto ...	Ditto do. do., Kharaincha,	Ditto ...	Ditto ...	...	
34	Ditto ...	Ditto do. do., Soholwa ...	Ditto ..	Ditto ...	...	
35	Ditto ...	3rd class do. do, Nishangara,	Ditto ..	Ditto ...	...	
36	Ditto	Ditto do do., Mohipur, ...	Ditto ..	Ditto ...	...	
37	Ditto ...	Ditto do. do., Kharaincha,	Ditto ...	Ditto ..	...	
38	Ditto ...	Ditto do. do., Charda ...	Ditto ...	Ditto ...	...	
39	Ditto ...	Ditto do. do., Kakarderi...	Ditto ...	Ditto ...	...	
40	Ditto ...	Ditto do. do., Ponsonhygan	Ditto ...	Ditto ...	...	
41	Ditto ...	Ditto do. do., Soholwa ...	Ditto ...	Ditto ...	...	
42	Ditto ...	Ditto do. do, Bhartha ...	Ditto ...	Ditto ...	...	
43	Ditto ...	Ditto do. do., Murtiha ...	Ditto ..	Ditto ...	...	
44	Gonda ...	Forest 1st class double storied rest-house, Chandanpur.	Ditto ..	Ditto ...	...	
45	Ditto ...	3rd class single ... do., Chandanpur ...	Ditto ...	Ditto ...	...	
46	Ditto ...	Ditto do. do., Bhagwanpur ...	Ditto ..	Ditto ...	...	
47	Gorakhpur ...	2nd class do. do., Chauk ...	Ditto ...	Ditto ...	...	
48	Ditto ...	Ditto do. do., Sakhni ...	Ditto .	Ditto ...	...	
49	Ditto ...	Ditto do. do, Dasbhar ...	Ditto ..	Ditto ...	...	
50	Ditto ...	Ditto do. do., Mandhaulia ...	Ditto ..	Ditto ...	...	
51	Ditto ...	Ditto do. do, Banspar ...	Ditto ..	Ditto ...	...	
52	Ditto ...	Ditto do. do, Pakri ...	Ditto ..	Ditto ..	...	
53	Ditto ...	Ditto do. do., Chaumukha ...	Ditto ..	Ditto ...	...	
54	Ditto ...	Ditto do. do., Ramgarh ..	Ditto ...	Ditto ...	...	

NAINI TAL:
The 30th June, 1884.

E WOOD, CAPTAIN,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle

APPENDIX D

Forest Department, Oudh Circle, North-Western Provinces and Oudh.

Summary showing timber and other produce cut and collected by Government agency and disposed of during the years 1882-83 *and* 1883-84

Description.	Sold locally, i. e., not brought to Depôt.		Balance in hand at commencement of the year		Brought to Depôt		Total.		Removed by purchasers from Depôt		Converted in Depôt.		Lost or written off as useless.		Used by the Depôt.		Total issues from Depot.		Balance in hand at close of year.	
	Number.	Value.	Number	Value	Number.	Value.	Number.	Value.	Number.	Value	Number	Value.	No	Value	No.	Value	Number.	Value.	Number	Value.
1882-83.		Rs		Rs.		Rs		Rs		Rs		Rs		Rs.		Rs		Rs		Rs.
Timber, c ft	700	437	562,447	2,82,947	1,151,752	6,83,375	1,714,193	9,66,322	159,671	2,09,544	914,569	4,16,272	5,675	2,352	4,907	1,612	1,084,820	6,29,780	629,373	3,36,542
Drift timber „	10,226	2,161	...	...	250	285	250	285	250	285	...	...	...	...	...	...	250	285	...	...
Saplings ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poles, No. ...	...	...	1,898	377	1,096	257	2,994	634	546	143	...	...	4	1	112	19	662	163	2,332	471
Bamboos, sers,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds.,	...	...	66	7	4	1	70	8	4	1	...	...	...	...	...	...	4	1	66	7
Charcoal „	66	23	206	62	67	74	273	136	273	136	...	...	...	...	...	...	273	136	...	...
Minor produce,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	10,992	2,621	564,611	2,83,393	1,153,169	6,83,992	1,717,780	9,67,385	160,744	2,10,109	914,569	4,16,272	5,677	2,353	5,019	1,631	1,086,009	5,30,365	631,771	3,37,020
1883-84.																				
Timber, c ft,	2,932	2,872	629,373	3,36,542	2,696,385	16,43,061	3,325,758	19,79,603	641,334	6,09,529	1,678,619	9,39,309	827	157	13,983	3,496	2,504,563	15,52,491	821,195	4,27,112
Drift timber „	7,362	2,007	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saplings ...	211	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poles, No. ...	18	6	2,332	471	347	2,168	2,679	2,639	1,105	1,465	44	11	8	2	1,073	268	2,230	1,746	449	893
Bamboos ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds.,	410	28	66	7	29,240	2,125	29,306	2,132	28,390	2,023	...	...	66	7	...	...	28,456	2,030	850	102
Charcoal „	45	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	10,998	5,000	631,771	3,37,020	2,725,972	16,47,354	3,357,743	19,84,374	640,829	6,13,017	1,678,663	9,39,320	701	166	14,056	3,764	2,535,249	15,56,267	822,494	4,28,107
1882-83 ...	10,992	2,621	564,611	2,83,393	1,153,169	6,83,992	1,717,780	9,67,385	160,744	2,10,109	914,569	4,16,272	5,677	2,353	5,019	1,631	1,086,009	5,30,365	631,771	3,37,020
1883-83 ...	10,998	5,000	631,771	3,37,020	2,725,972	16,47,354	3,357,743	19,84,374	640,829	6,13,017	1,678,663	9,39,320	701	166	14,056	3,764	2,535,249	15,56,267	822,494	4,28,107
Difference ...	+6	+ 2,379	+ 67,160	+ 53,627	+1,872,803	+9,63,362	+1,639,963	+10,16,989	+ 480,085	+4,02,908	+ 964,094	+5,23,048	− 4,976	− 2,187	+ 9,037	+ 2,133	+1,449,240	+9,25,902	+ 190,723	+ 91,087

Naini Tal:
The 31st July, 1884.

E. WOOD, Captain,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

APPENDIX E.

FOREST DEPARTMENT, OUDH CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Statement of forest produce given free to the privileged villagers during the year 1883-84.

Division.	Description of forest produce given free.	Number of quantity.	Amount. Rs. a. p.	Remarks.
Pilibhit ...	Sal wood for ploughs ...	H loads 669	83 10 0	For villagers of pargana Pilibhit
	Withies ...	C. loads 8	8 0 0	Ditto ditto.
	Thatching grass ..	" 486	242 0 0	Ditto ditto.
	No statistics available for pargana Puranpur, but it is estimated to be about	10,000	10,000 0 0	Ditto pargana Puranpur.
	Total	...	10,334 10 0	
Bhira Sub-division.	Poles and saplings ...	No 39,915	592 7 3	For privileged villagers.
	Firewood ...	H loads 16,512	80 12 9	Ditto ditto.
	Creepers ...	Loads 33	2 1 0	Ditto ditto.
	Thatching grass ...	H loads 8,080	200 12 0	Ditto ditto.
	Thorns ...	" 4 210	10 9 0	Ditto ditto.
	Total ...	...	816 10 0	
Kheri ...	Sál timber ...	C. loads 1,093	762 8 0	Ditto ditto.
	Unreserved saplings and poles, &c.	" 6,520	5 392 0 0	Ditto ditto.
	Firewood ...	" 6,456	807 0 0	Ditto ditto
	Grasses ...	" 13,986	4,118 10 0	Ditto ditto.
	Grazing cattle ...	No. 6,472	987 12 0	For Tharus' cattle.
	Total ...	...	13 067 14 0	
Bahraich...	Unreserved wood ...	No. 496,472	26,145 0 0	Free grants to privileged villagers
	Firewood ...	Mds. 956,240	918 0 0	Ditto ditto.
	Grasses ...	Bdls 3,416,709	11,341 0 0	Ditto ditto.
	Leaves ...	Mds 134	6 0 0	Ditto ditto.
	Total ...	...	38,410 0 0	
Gonda	Sál timber ...	C. ft. 272	95 12 0	Ditto ditto.
	Unreserved timber ...	" 11,782	3,315 12 6	Ditto ditto.
	Firewood ...	Mds. 29 655	166 14 1	Ditto ditto.
	Fodder for elephants ...	" 3,251	203 3 0	For Mahárája of Balrampur's elephants.
	Grasses ...	" 7,277	175 3 7	For privileged villagers
	Barks ...	" 10	2 8 0	Ditto ditto.
	Total ...	...	3,959 5 2	
	GRAND TOTAL ...	...	66,588 7 2	

Besides the above, the following statement shows the free grant of timber, &c., to the Public Works Department for constructing a roadside bungalow and bridge in the Gorakhpur district.

Gorakhpur,	Sál logs for door-frames and roofings.	No. 26	160 0 0	For roadside bungalow of Department Public Works.
	Sál Ballas ...	" 303	201 10 0	Ditto ditto.
	Firewood, cartloads 95 (× 10) maunds	950	95 0 0	Ditto ditto.
	Total ...	...	456 10 0	
	Sal ballas ...	No. 190	235 8 0	For Taimar bridge.
	Sal sleepers ...	" 265	530 0 0	Ditto.
	Total ...	...	765 8 0	
	Grand Total ...	...	1,222 2 0	
	GRAND TOTAL OF ALL ...	...	67,810 9 2	

NAINI TAL: *The 30th June, 1884.*

E WOOD, CAPTAIN,
Conservator of Forests, Oudh Circle, N.-W. P. and Oudh.

SCHOOL CIRCLE REPORT.

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N.-W. PROVINCES AND OUDH.

SCHOOL CIRCLE.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION
FOR THE YEAR 1883-84.

By Mr. W R Fisher, Offg Conservator of Forests.

INTRODUCTION.

Staff of Officers.

1. There has been no addition to the staff of officers during the past year, except that Mr. Smythies returned from furlough on 9th April, 1883. During his absence Mr Smythies had been transferred to the Panjab List of Forest Officers, but he was re-transferred to the forest staff of this Province by G. O. No. 433, dated 7th May, 1883.

Major Bailey proceeded on deputation to England on the 22nd February, and has since been appointed by the Secretary of State Director of Forest Studies at Nancy from June till September, 1885 ; he has been succeeded by Mr. W. R. Fisher as Officiating Conservator of the Circle and Director of the Forest School. Mr. Fisher was succeeded as Deputy Director of the School by Mr. Fernandez, whose appointment as Superintendent of Working Plans has not yet been filled by the Government of India. Dr. Warth, Professor of Natural Sciences, was suspended by the Local Government on the 9th February, 1884, on a report by Major Bailey regarding discipline of the Forest School, and the question was still pending before the Government of India at the close of the year.

The staff of the officers in the School Circle at the close of the year 1883-84 stood thus :—

Mr. W. R. Fisher	...	Officiating Conservator and Director, Forest School.
Mr. E. E. Fernandez	...	Ditto Deputy Director and in charge of Dehra Dún Division.
Mr. McArthur Moir	...	Deputy Conservator of Forests, 3rd grade, in charge Jaunsar and Tons Divisions.
Mr. A. Smythies	...	Deputy Conservator of Forests, 4th grade, in charge Sahá-ranpur Division.
Dr. Warth	...	Professor of Natural Sciences, under suspension
Mr. N. Hearle	...	Assistant Conservator of Forest, 1st grade, on deputation to Oudh Circle.
Mr. A. F. Broun	...	Assistant Conservator of Forests, 1st grade, attached to Working Plans Branch.
Mr. M H. Clifford	...	Assistant Conservator of Forests, 3rd grade, attached to Dehra Dún Division.
Mr. A. G. Hobart-Hampden	...	Assistant Conservator of Forests, 3rd grade, on deputation to the Oudh Circle.
Babu Karuna Nidhan Mukarji	...	Sub-Assistant Conservator of Forests, attached to the Dehra Dún Division.

Mr. Fisher retained charge of the Dehra Dún Division till he assumed the charge of the Circle.

Mr. Fernandez was Superintendent of Working Plans till the 22nd February, and since that date has continued in charge of the local working plans in addition to his other duties.

Mr. N. Hearle was in charge of the Saháranpur Division, in addition to his charge of the Jaunsár Division, up to the 16th April, 1883, when he made over charge of the former to Mr. A. Smythies.

Mr. McA. Moir received charge of the Jaunsár Division from the 26th June, 1883, consequent on the deputation of Mr. N. Hearle to the Forest School.

Mr. Hobart-Hampden received charge of the Tons Division from Mr Moir on the 3rd July, 1883, in consequence of Mr Moir's temporary transfer to the Jaunsár Division, and retained it till the 4th November, 1883, when he proceeded to the Oudh Circle and did not rejoin the Tons Division till after the close of the year

Mr. Moir retained charge of the Jaunsár and Tons Divisions till the close of the year from the date of Mr. Hobart-Hampden's transfer.

Mr. Hearle was in charge of the Jaunsár Division from the commencement of the year to the 25th June, 1883, when he made over charge of the division to Mr Moir and proceeded to the Forest School Mr Hearle was temporarily transferred to the Oudh Circle, and he left Dehra Dún on the 28th October, 1883, and did not rejoin this Circle till after the close of the year.

A serious charge of complicity in drawing up a misleading report regarding a forest boundary dispute in the Eastern Dún was brought against Babu Karuna Nidhan Mukarji in February, 1884, by the Superintendent of Dehra Dún, and the matter was pending at the close of the year; the Conservator being of opinion that the Sub-Assistant Conservator had shown great carelessness, but had not in any way intended to defraud Government

Messrs Clifford, Hearle, and Hobart-Hampden all passed in the lower standard in Urdu and Nagri in the general departmental examination held last October at Meerut

I have to acknowledge, on Major Bailey's behalf rather than on my own, the zealous manner in which the officers in the Circle have assisted in the work.

Forest School.

2. *Course of theoretical and practical instruction*—The 3rd course of theoretical instruction was held from 1st July to 31st October; it was attended by 36 officers of the subordinate and one of the superior staff, whose distribution according to their respective Provinces is given in the following list:—

Province or Circle.	2nd year's men		1st year's men.		Total.	Remarks.
	Superior officers.	Sub-ordinate officers	Superior officers	Sub-ordinate officers.		
Bengal	...	2	...	2	4	
Assam	...	2	1	1	4	
School Circle, North-Western Provinces ...	...	1	...	5	6	
Central Circle, ditto .	...	...	...	1	1	
Oudh Circle	...	1	...	...	1	
Panjáb	...	3	...	6	9	
Central Provinces	...	1	...	1	2	
Pegu Circle, British Burmah ...	...	4	..	...	4	
Tenasserim Circle, ditto ...	...	1	...	...	1	
Berar	...	1	...	...	1	
Madras, Southern Circle	..	.	...	2	2	
Patiala State	...	1	...	...	1	
Kapurthala State	...	1	...	...	1	
Total ...	...	18	1	18	37	

Instruction was given solely by officers of the Circle, the subjects being taken as follows:—

Forestry	.. Messrs Fisher and Fernandez
Botany	... Mr Hearle.
Physical Science and Chemical Practice	... Dr. Warth
Law	... Mr. Broun
Mathematics	... Messrs. Fisher, Smythies, and Babu Karuna Nidhan Mukarji.
Surveying	... Mr Latchfield
Road-making and building	... Major F Bailey
Entomology	... Mr Clifford.

At the close of the course, 12 students of the 2nd year obtained the Rangers' certificate and returned to their own Provinces, six failed to obtain certificates, and of these three were remanded for another year's study, and they as well as all the 1st year's students, 16 in number, were employed in practical work in the forests of the School Circle or in the Working Plans or Forest Survey Branch, the students of the 1st year working in sections for two months each in the latter One of these students, who was a forester in the Dun Division, was permitted to resign his appointment, as his conduct was not above suspicion in a case of extortion which came to light

I am glad to be able to report that two of the students—Babu Jogeswar Súr in Assám and Maliadeo Rao Palnaitkar in the Central Provinces—who left the school, have been promoted as Sub-Assistants Conservators, and that Mr Ribbentrop, Conservator of Forests in the Panjáb, which Province has made more use of the Forest School than any other, has informed me that the Dehra Forest School has turned out several rangers for the Panjáb of whom we may well be proud

3 *School buildings, herbarium and library* —The expenditure on the school buildings has been Rs 364 for repairs, and one shed has been added during the year for testing the durability of timber, at a cost of Rs 342, charged to A IX c.

During the year 137 volumes were added to the school library, bringing the total number of volumes up to 1,884

4 *Professor of natural sciences* —Dr. Warth again undertook the instruction in physics, chemistry, mineralogy, and geology, and Mr Smythies attended his lectures, so as to be ready to take up the work in case of necessity

Regarding his other work Dr Warth reports as follows :—

Mussoorie and its neighbourhood were geologically examined and rocks and minerals analysed The results are recorded on a map which was published with descriptive text The map and text are also used as means of instruction for the students at the Forest School Several species of wood were analysed under Dr Warth's guidance by students during the lecturing season, and by Munshi Birbal, the Laboratory Assistant, throughout the rest of the year

Completed and supplemented the manuscript of lessons which is intended for a Manual of Natural Sciences taught at the Forest School; also the catalogues of mineralogical and geological collections

Preparation of more wooden models of crystals Plan for sleeper slide Experiments were made on the denaturalization of common salt Continued experiments on the durability of timber in a shed where sleepers can be stored and exposed free from white ants A plan and estimate for a process of impregnating timber with copper sulphate was drawn up Commenced an apparatus for lowering and raising sets of thermometers to make meteorological observations 60 feet above the ground without the observer ascending the scaffolding

Constructed and tried a shade for exposing sets of thermometers in the forest

Erection of comparative meteorological stations in the forest at Ramgarh, in the Dehra Dún Two pairs of large stations for observing near the ground and 50 or 60 feet above the ground inside as well as outside of the forests were projected and all will be finished in the current year

A geological map of India on a suitable scale for lecturing purposes at the Forest School, and elsewhere, produced by reduction of geological survey map of 1877 and supplemented up to date

The map is also intended to form a part of the Manual of Natural Sciences and will at once be used by students and others

Continued the meteorological observations and percolation experiments at the head quarters, Dehra Dún Sent results of the same also geological and other collections, to the Calcutta International Exhibition

Dr Warth's suspension resulted from the following circumstances.—In September, 1883, he, in common with the other instructors at the school, was called upon by Major Bailey to submit monthly reports regarding the progress and application of each student and to use definite phrases, *very good, satisfactory, unsatisfactory*, in doing so This he declined to do, on the ground that he was unable to judge of the progress and application sufficiently. The matter was reported to the Local Government, and Dr. Warth was ordered to comply with Major Bailey's wishes.

In consequence of this Dr. Warth made notes regarding the application and progress of some of the students, but the Local Government did not consider that he had complied with the orders he had received and directed his suspension on 2nd February, 1884, since which date the question has been before the Government of India.

General account of the forests, main outlines of operations and principal improvements called for.

5. *General facts relating to the Circle.*—The proper management of the forests has been greatly hampered by the untrustworthiness of the subordinates, who are under-paid for the responsible posts which they hold, especially in the plains' divisions, where a forester on Rs. 15 per month, out of which he is expected to provide uniform and a pony, is frequently in charge of 12 to 20 square miles of forest, in which the standing timber has an actual market value of several lakhs of rupees; and during the cold weather, besides the protection of the forests, he has to supervise building, road-making, fire conservancy, climber-cutting, and plantation works.

In the hills' divisions, supervision is much easier and the works are more concentrated, and the establishments are generally more reliable than in the plains' divisions; but even here a good deal of oppression has been exercised by the inferior class of men employed as foresters, who cause considerable delays in allotting free grants of standing trees to villagers.

The office establishments also require strengthening, and the present system, which throws the accounts as well as the English correspondence upon one office clerk in each division, is open to objection.

Major Bailey sent up a project to the Local Government, giving improved prospects to the protective and office establishments, but no orders have as yet been passed by Government.

Grazing dues for outsiders.—A complete revision of the grazing rules for the Circle for outsiders was prepared by Major Bailey and has received the sanction of Government.

Formerly all cattle passing through the forests paid a year's grazing dues, even though they might not graze, or only grazed for a few days; whilst camels engaged in the carrying trade, which regularly grazed in the forests and principally on branches of trees, were free if they did not stay for more than 10 days at a time in one division, though they really passed constantly between the Saháranpur and Dún Divisions and evaded all payment for their grazing.

Under the present rules, all cattle passing along the high roads and not staying to graze in the forests are exempted from payment, and though this will cause a loss of Rs. 6,000 to 7,000 of grazing revenue, yet it was an act of justice to surrender this revenue, as it resulted from a mere toll along the high roads.

Under the new rules, camping-grounds will be provided at convenient intervals where the roads pass through the forests, and no dues will be charged for cattle which do not stay more than 24 hours at these camping-grounds.

In the case of Chamba and Kangra sheep and goats passing along the submontane road in the Saháranpur district from the Jumna to the Ganges, a payment of 3 pies per animal instead of the ordinary rate of one anna each will be taken, provided they move straight on and only halt for one night at the camping-grounds.

6. *Leases of minor produce.*—The lease system for dead timber and minor produce has now been in force for three years in the forests of the Dún and Saháranpur and in the Kalsi forest in the hills' divisions.

It was introduced, as the former system of collecting revenue at the chaukis was considered open to serious objection owing to the inaccessibility of some of the chaukis

to purchasers, and on account of corrupt practices on the part of the chauki subordinates. The lease system has given rise to three serious criminal cases :—

(1) In Timli forest, in 1881, when green wood to the value of Rs. 2,002 was seized in the stacks of the lessee, and the latter convicted under the Forest Act and sentenced to pay the very inadequate fine of Rs. 100, the Magistrate considering that the confiscation of the lessee's own timber, valued at Rs. 1,121, included in the stacks, together with this fine, was sufficient punishment ; but owing to some informality in the trial, the latter amount was refunded to him by order of the High Court.

(2) In the Motichur forest, in 1882, when about 1,000 green sál poles were felled by the lessees in collusion with the forestor, who was tried and sentenced to three years' imprisonment, the case against the lessees not having been proved in court.

(3) In a recent case in the Nagsidh forest, in which a large quantity of green timber has been exported as dead timber by the lessees in collusion with the forester and forest guards, which will be reported on fully in next year's report.

Since the large frauds in the Motichur forest, that as well as the Kansrao forest has been managed under the rawannah system, and the results of the two systems may be compared from the following table for the Motichur forest :—

No.	Years.	Rawannah.	Tickets, &c.	Lease.	Total.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs a. p.
1	1878-79	832 7 6	2,674 5 0	...	3,506 12 6
2	1879-80	2,038 10 6	2,993 2 6	...	5,031 13 0
3	1880-81	2,816 10 11	2,674 5 0	...	5,490 15 11
4	1881-82	981 6 6	1,636 6 9	—	2,617 13 3
5	1882-83	52 4 0	1,795 1 9	4,000 0 0	5,847 5 9
6	1883-84	2,622 8 3	3,445 14 3	...	6,068 6 6

The very small revenue of 1881-82 was probably due to defalcations on the part of the subordinates at the chaukis, as Mr. Fisher had that year newly arrived from Assam and had not sufficient experience to check the work.

The revenue in 1882-83 other than the lease-money is for grazing dues, which are not included in the lease, and by sale of tickets from April to October, during which the rawannah system was still in force. The price paid for the lease was very high, and the lessee intended to recoup himself by theft, but this was prevented in time.

7. *Comparison of lease, rawannah and kham tahsíl systems.*—Mr. Fernandez has written a note comparing the lease, rawannah and kham tahsíl systems and advocating the introduction of the rawannah system, which is appended ; and I think that the rawannah system should be tried in forests which have been overworked, whilst the lease system may be continued for the present in the more remote forests in the Dún and Saháranpur Divisions under improved supervision by divisional officers. Mr. Fernandez's note is as follows :—

The lease system has again had a trial and has most notoriously failed. It is an excellent system, and indeed the best one to adopt in most of the Dún forests if we could secure honest lessees and trustworthy subordinates.

But the class of men to whom we are obliged to lease our forests are as a rule men of straw, with everything to gain and little to lose by dishonesty; while, owing to a bad system of organisation which entrusts heavy responsibility to men drawing low pay and enjoying next to no prospects of promotion, the best subordinates are exposed to strong temptations which few of their class resist. Under the circumstances, we should gradually generalise the rawannah system, which should bring in to Government the royalty on all produce removed, whilst the lease system enables the lessee to take out for a fixed sum as much produce as he can, whether honestly or dishonestly, and its essence is therefore a fixed payment for an indefinite quantity of produce.

The lease system is thus essentially one in which the lessee is necessarily a speculator, who buys as it were in the dark, in complete ignorance as to the quantity and exact quality of the various kinds of produce specified in the lease that are available in the forests.

Thus, if he be a cautious and honest man, he is obliged to shelter himself against loss by offering a comparatively small sum as purchase-money; while if he is rash or dishonest, he purchases at an excessively high figure, and thus either suffers a loss or depends for large profits on his being able to remove illicitly-obtained produce outside his lease, which he is easily able to do if he can buy up the protective establishment in charge of the forest.

This is easily accomplished by an unscrupulous and enterprising person with a low-salaried establishment not counting in its ranks a single forest ranger, such as we have at present to work with. Besides this, combinations between the lessee and the establishment to defraud Government are more easily got up in the lease system, in which the direct purchasers from the Department number at the outside no more than the few individuals composing a single firm. Moreover, the adoption of the lease system is a *confessio paupertatis* on the part of the Forest Department, an admission that it does not feel itself competent to manage the forests entrusted to its care with a full knowledge of the extent of the resources at its disposal The lease system is in forest management what the system of farming out the land revenue was in the primitive days of land revenue settlements.

There is still another very great disadvantage which attaches to the lease system, and that is, that it is totally unsuitable for the sale of dead and dry wood and timber, the chief source of revenue in the Dehra Dún forests If this class of produce is included in a lease, nothing is easier for the lessee than to kill, with the collusion of the protective establishment, a large number of trees during the rainy season, and thus buy the lease of the forest again the following year at a price high enough to overcome the competition of bidders unconscious of the fraud, but far too low for the amount of dead and dry wood and timber that they know will be available that year

A case to the point has just occurred and will be recorded in next year's annual progress report

On the other hand, with the rawannah system in force, the number of purchasers would be nearly as numerous as the number itself of the rawannahs issued, so that combinations on any appreciable scale would be all but impossible, and, when effected, would be easily detected Moreover, the rawannah-holders, being, as a rule, men of very limited means, could not afford to pay large bribes like the dishonest lessee, to the forest officials, who would thus be less easily tempted to be dishonest. The margin of profit which in the lease system belongs to the lessee would in the rawannah system fall to Government, and more than pay for an addition to the number of revenue chaukis and to the strength of the establishment. Besides this, the rawannah system would bring the establishment into more intimate contact with the population of the district than does the lease system, and is thus better calculated to create and maintain a friendly attitude on their part.

Under the term rawannah system I mean the system already adopted in the Dún, in which the forest officials at the various chaukis issue rawannahs to intending purchasers of forest produce, who then cut and export the produce in question on the authority of the rawannah.

The system is based on the same lines as the well-known license system, which has been brought to such perfection in the Central Provinces, and which received the warm approbation of the Inspector-General of Forests in his late inspection report on forest administration in those Provinces. It differs entirely from the kham tahsil system, in which payment is received at the first line of chaukis for produce already exported as far as that line, and in which any one may go without permission into the forest and fell and convert what he likes.

For firewood, for the inferior kinds of timber, for minor produce, fodder, grass, &c., rawannahs and tickets should be sold at the various chaukis without reference to higher authority; but all the valuable kinds of timber, such as sál, sain, sissu, &c, should be sold, standing or lying on the ground, as the case may be, to men of means either at so much per tree or at so much per cubic foot for the various scantlings and logs obtained from them, and the rawannahs for this timber should be issued only by the divisional officer after it has been carefully measured, inspected, and passed by him or by some one acting under his authority.

8. *Record of reserves.*—A detailed record of the boundaries of all reserved forests in the Circle has been commenced in a more or less desultory manner in all divisions; but unless this work can be entrusted to a special officer, it is feared that it will not be done in a thoroughly satisfactory manner, and an attempt will be made next cold season to start the work properly.

9. *The Divisions.* DEHRA DÚN.—During the year the main operations in the reserved forests of the Dún were as follows:—Continuation of the thinnings in the Ramgarh forest, 1,428 sál and 339 sain trees being felled by the purchaser of those marked in 1882 and 2,136 sál and 433 sain of those marked in 1883.

Besides these, the following trees were sold and felled by purchasers in selection fellings:—

500 sain trees in Tirsal forest.	200 sissu trees in Uperla Suswa.
200 sissu ditto Niehla Song	200 chír ditto Malkót forest.

95 sál, 12 tún, and 7 sissu trees were also felled departmentally for use in forest buildings.

All injured sál poles and saplings were cut back and climbers cleared and inferior trees girdled over an area of 1,106 acres in the Bullawala forest, burned in 1882.

The dry standing and fallen wood, bamboos, and minor produce were leased by public auction at Dehra for Rs. 13,260 as against Rs. 10,365 in the previous year. The bamboos in Tehri-Garhwál were excluded from the lease, which only included dead wood and minor produce, as the protection of the bamboos for two years was considered necessary. Other produce was leased as follows :—

				Rs.
Limestone	...	...	...	3,674
Hides and horns	...	...	...	555
Drift wood	...	...	...	2,305
Semla gum	...	...	...	455
Honey and wax	...	...	...	30
				7,020

1,361 green kukat trees were felled in order to provide fuel for lime-kilns and yielded 20,130 maunds of fuel, which produced Rs. 1,241; 19,500 green kukat poles and saplings were also sold and felled by purchasers, principally in the Tehri forests, as floats for rafts on the Ganges river.

Twenty-four miles of new roads were constructed at a cost of Rs. 1,570 and 200 miles of forest roads repaired at a cost of Rs. 1,920.

Two forest rest-houses were constructed with suitable out-houses, at Lachiwala and on a hill above the Thane forest, at a total cost of Rs. 4,052.

A pucca well was constructed at Parduni at a cost of Rs. 445, and another commenced at Bullawala.

The existing plantations were repaired; but a reduction is shown in the total area as compared with that of last year, as 14 acres of forest in Ramgarh was then wrongly entered as complete. and the new plantations made during the year were not successful.

Climbers were cut and injurious kukat trees girdled over 4 square miles in the Bullawala forest and 3 square miles in the Chandrabani forest.

The record of reserves in progress has been entrusted to Babu Karuna Nidhan Mukarji under Mr. Reynolds' orders; but Mr Fernandez reports that it is not likely to be completed unless a superior officer with a better knowledge of English than the Babu be deputed specially for the work.

The same remark applies for all the divisions of this Circle, as the time of divisional officers is too much occupied with other work for them to devote sufficient time for the detailed record of reserves

The Working Plan Branch was engaged in the Dún forests throughout the year, and the working plan will soon be published.

Improvements called for.—Besides the improvements which are generally required for the Circle and which have been referred to already, the following are specially called for in the Dún Division:—

(1) Revision of the grazing arrangements, a report having been submitted to Government on this subject by Major Bailey for this and the Saháranpur Divisions, but no orders have as yet been issued by the Local Government.

(2) Arrangements to control the timber traffic and collection of drift wood in the Ganges river, the control of which is now vested in this division.

(3) Completion of the working plan of the Dún forests, in which the question of protecting the bamboo forests from over-thinning and the permanent supply of fuel for lime-burning, as referred to in last year's report, will be provided for.

(4) Gradual increase of the area of closed forests, as no improvement can be hoped for in the oper forests and regular fellings cannot be undertaken in them.

(5) Demarcation of the leased forests in Tehri-Garhwál, supposing that those at present attached to the Dún are retained by the new lease now under consideration.

SAHÁRANPUR.—During the year the western range was leased for the first time, as well as the Eastern and Central ranges, the sale of the leases having produced Rs. 20,076 as compared with Rs 13,829 in the previous year.

Besides this amount, Rs 10,465 were collected at the chaukis.

The existing roads were repaired, but no new roads undertaken.

The Dholkhand bungalow was completed at a total cost of Rs 2,490, and two wells were constructed at Ranipur and Patri; 17 acres of new plantations were added.

The outer boundary of the central range was cleared and a trench dug along the outside; but the stumps were not extracted from the clearing, owing to defective supervision, and coppice-shoots have sprung up and closed the line again.

The principal improvements called for are :—

(1) Better roads, and new buildings for forest subordinates.
(2) Improvement fellings in the sál forests.
(3) A better system of checking the numbers of the cattle which graze in the forests.
(4) Closing of additional areas of forest against fire.

JAUNSÁR.—The principal work of the year was as usual to supply the public departments at Chakráta with timber and fuel.

Ten tons of boxwood were sent to England.

Three and three-fourths of miles of new roads and paths were made and all existing roads and pathways repaired, 42 acres of new plantations were made and numerous blanks in former plantations filled up

A concise statement of the forest rights in Jaunsár was prepared by Major Bailey and has been published.

The following improvements are called for, all of which but the last are common to both the hill divisions :—

(1) Development of trade in fir and pine timber.
(2) Disposal of refuse wood in fellings.
(3) Restriction of Gújars grazing in the forests.
(4) Improvement in system of issuing free grants of forest produce to villagers.
(5) Introduction of the use of the saw by the villagers in removal of free grants of deodar, three parts of which are wasted by the present system of cutting out planks by the axe.
(6) All deodar trees given as free grants to be marked by divisional officers only, and none given away in 1st class forests.
(7) Proper arrangements for collecting a sufficient quantity of the different sorts of seeds in the right season.
(8) Closer planting in artificial plantations, so that the area may become well stocked as soon as possible.
(9) Reduction in rates of fuel felling and transport.

TONS.—The sleeper works were carried on as usual, the floating operations being under Mr. Winton, who has been informed that his contract will terminate in June, 1884. This will be a great gain to the Forest Department, as the rates paid to Mr. Winton, though perhaps low enough at the commencement, when the work was not well known and labour difficult, are far too high at present.

The unsatisfactory state of the dispute with the Mahárája of Sirmúr regarding the river dues and the Tons road continues, and he has refused to accept Rs. 500 per annum offered to him by the Local Government in settlement of all his claims.

Besides repairs to existing roads, the construction of 1½ miles of sledge road for conveyance of sleepers has been undertaken at Deota; it is still in progress, and will be referred to in detail in next year's report.

Only a few trees were sold standing, though a number of applications, principally for deodar trees, were received; but Major Bailey did not wish to sell trees till an estimate had been made of all available stock, and this it was not possible to do till the end of the year.

The principal improvements called specially for in the Tons Division are :—

(1) The reduction in the rates of preparing and exporting sleepers, and especially the termination of Mr. Winton's contract.

(2) A better system of protecting chír forests from fire, in which the villagers should be induced to take an interest by offer of rewards for successful protection.

(3) Completion of the demarcation of the Bashahr forests.

CHAPTER I.

Area and Boundaries.

Area.

10. The area of reserved and leased forests stood thus at the commencement and close of the year :—

1st April, 1883		1st April, 1884.		Decrease in acres.
Acres.	Equivalent in square miles	Acres.	Equivalent in square miles.	
496,911	776	495,171	774	1,740

The decrease is due to an island in the Ganges having been transferred from the Saháranpur to the Bijnor district.

Boundaries

11. Partial revision and repairs of the boundaries of the forests in this Circle are still in progress, especially in the Saháranpur Division.

In the Dún some boundaries require adjustment owing to disputes under consideration of the Settlement Officer.

In the Jaunsár and Tons Divisions only repairs of existing boundary pillars were attempted, and Mr. Moir reports that the pillars in the Deogarh forests requiring adjustment were not attended to during the year owing to the sudden transfer of Mr. Hobart-Hampden to Oudh. The demarcation of reserves in Bashahr was put off till 1884-85, owing to Mr. Moir's making a two-months' tour with Dr. Schlich and to the pressure of other work, and the Tons divisional officer could not find time to inspect his boundaries regularly during the year.

The total expenditure is as follows :—

	Rs.
Construction, repairs, and numbering of boundary pillars	507
Clearing of boundary lines	3,185
Boundary paths	41
Miscellaneous	15
Total	3,748

The following length of boundary in the different divisions has been certified to be in good order :—

	Miles.
Dehra Dún	163
Saháranpur	124
Jaunsár	*Nil*
Tons	"
Total ...	287

Mr. Hearle reports that 315 miles of boundary in Jaunsár are believed to be in good order Mr. Moir gives no figures for the Tons Division, but has prepared a scheme by which the boundary will be regularly inspected in future years. Inspection of boundary pillars is much more difficult in the hills than in the plains, and this, and the fact that Mr. Moir held charge of two divisions for a considerable part of the year, account for the non-inspection of boundaries in the hill divisions.

DEHRA DÚN.—As regards boundaries, the work of improving the demarcating lines and increasing the number of pillars is still in progress.

Some changes in the boundaries will have to be made in consequence of disputes which are being settled by the Settlement Department now at work in the Dún.

The following is an abstract of the expenditure, including the clearing of boundary lines and the construction of bridle-paths along some of them :—

	Rs.
Construction and numbering of boundary pillars	410
Construction of boundary paths	...
Clearing 163 miles of boundary lines	861
Total .	1,271

One hundred and sixty-three miles of boundary are certified to be in good order.

Saharanpur.—The work of clearing the boundary in the central range was pushed on, and 56 miles were cleared and a trench 1′ × 1½′ dug on the outside at a cost of Rs. 1,886. The contractor, however, did not perform his work properly and left all the stumps unremoved, with the result that a dense mass of shoots has sprung up which renders passing along the line difficult. All the large trees, however, were cut down and a trench was dug, so that the boundary is easily traceable.

The greater portion of the boundary may be certified to be in good order, the only portion which is not really clear being a few miles in the western range. The boundary has now been divided into five sections, one of which will be cleared every year. The total expenditure under this head was Rs 2,370.

Jaunsár—All necessary repairs to the boundary pillars have been made at a cost of Rs. 35-1-6, and Kurwa was divided into 22 compartments for coppicing at a cost of Rs. 40-15-2.

Tons.—As pointed out in last annual report, many mistakes exist in the position of the boundary pillars of the Deogarh forests, and it was hoped that the positions of the pillars would be corrected during the year, but the sudden transfer of Mr Hobart-Hampden to Oudh prevented the work being undertaken.

With the exception of the above, it is understood that the remainder of the demarcated boundaries are in good order.

Owing to the pressure of divisional work during May and June, and to the fact that Mr Moir held charge of both the Tons and Jaunsár Divisions after the rains and accompanied the Inspector-General of Forests on a two-months' tour of inspection towards the head of the Jumna and Ganges rivers, it was impossible to undertake the Bashahr demarcation during 1883-84 A good deal of correspondence has, however, taken place on the subject and in accordance with instructions received from the Superintendent, Punjab Hill States, Mr Moir has now submitted a programme of the proposed demarcation operations, which he will endeavour to complete before the end of November next. The expenditure was Rs 31 only

12. *Disputed boundaries.*—The disputed boundary in the Dún Division at Rampur Mandi is still undecided, and has given rise to a criminal case against Mr. Powell, who was convicted by the Assistant Superintendent of Dehra Dún. This sentence was upset on appeal to the Sessions Judge, whose decision was afterwards confirmed by the High Court, in spite of an appeal preferred by Government.

The dispute at Barkót was decided in favor of the Forest Department after a careful enquiry by the Superintendent of the Dún, the result of which was that a serious charge was brought against Babu Karuna Nidhan Mukarji, Sub-Assistant Conservator of Forests, and the District Naib-Tahsíldár, who had been directed to report as to the correct position of this boundary. This case was still pending, as far as the Sub-Assistant Conservator was concerned, at the end of the year.

Several other boundary disputes have come before the Settlement Department.

In Saháranpur several boundary disputes arose, which were settled by the divisional officer on the ground.

In the Tons Division the dispute with the Rája of Taróch has been referred to the Deputy Commissioner, Simla, who has promised to supply Mr. Moir with proper maps and records, and has directed him to decide the question in his capacity of Assistant Superintendent of Panjáb Hill States.

CHAPTER II.

Surveys, Working Plans, and Plans of Operations.

Surveys

13 In the Dehra Dún Division a Native Surveyor was employed throughout the year in surveying new pillars and roads and the sites of lime-kilns

A new map of the Dharagádh forests in Jaunsár was prepared by the Forest Survey Branch on a scale of 4" to the mile.

Working plans and valuation surveys.

14. The Working Plans Branch under Mr. Fernandez was employed in May and June, 1883, in the Dharagadh forests and, except during the monsoon months from July to October, has been at work in the Dún forests

The working plans of the Dharagádh and Dún Forests have been promised shortly

Measurement of growing trees.

15. Measurement of growing trees in the two sample plots of Phandowala and Manduwala in the Dún have been continued, no substitute having been found for the latter plot.

Measurements were also continued in the sample plots in the Saháranpur Division

In Jaunsár a plot of one acre of karshu forest was selected in June, and girth measurements of all the better trees taken, all suppressed and injured trees having been first cut down.

Reducing factors

16 Seven spruce and four silver fir trees were measured by forest students, the results being given in an appendix.

These results combined with former ones tend to show that the reducing factor for spruce is 50 and for silver fir 55.

Data for 16 deodar trees have been obtained by Mr Moir and Mr Hobart-Hampden. The results differ from previous ones, and this is explained by Mr. Moir as due to the large size of the trees operated on as compared with those of former years. The results are given in an appendix

Mr. Moir reports that the average outturn of accepted metre-gauge sleepers from the 35 trees operated on is 102·66 per tree.

Counting concentric rings.

17. Two forest students counted the concentric rings on 19 spruce and 5 silver fir trees in Jaunsár, and those on 9 deodar trees in the Tons Division were counted by Babu Jogeshwar Súr, Forest Ranger.

The results are given in an appendix.

Mr. Moir is still of the opinion that deodar trees form more than one annual ring in the year.

Annual plans of operations.

18. Plans of operations were as usual framed for each division, and abstracts of them are given in the appendix, showing to what extent their provisions were carried out.

Record of reserves.

19. In the Dún, Babu Karuna Nidhan Mukarji has been for some time engaged in the compilation of the record of reserves, but Mr. Fernandez now reports that it will all have to be done *de novo*, the Sub-Assistant Conservator's English being rather weak. At the same time his notes will be of great assistance to an officer undertaking the work.

In the Saháranpur Division Mr. Smythies reports that the work is being pushed on, and he hopes to get it finished before the rains. No progress has been made in either of the hill divisions in this work. It is evident from our experience of the last few years that, unless a special officer be deputed to complete the record of reserves for the whole Circle, the work will remain undone, as divisional officers, except perhaps in the Saháranpur Division, have not time for this work, which is tedious and requires the closest attention.

CHAPTER III.

Protection and Improvement.

Establishment

20. *Sanctioned permanent and temporary establishment.*—The following statement shows the amount sanctioned for permanent establishment and the actual expenditure on temporary establishment during the year :—

Division	Subordinate staff		Office establishment.	
	Permanent.	Temporary.	Permanent.	Temporary
	Rs	Rs.	Rs	Rs.
Dehra Dún	3,216	1,950	1,452	...
Saharanpur	1,872	4,230	1,140	203
Jaunsar	2,352	1,068	1,080	217
Tons	2,304	2,069	720	85
Direction	1,704	...	2,040	1,583
Total ...	11,448	9,317	6,432	2,088

21. *Appointment of Rangers.*—Besides Babu Karuna Nidhan Mukarji and Mr Lowrie, now Officiating Assistant Conservator of Forests in Ajmir, only two men belonging to this Circle have as yet passed through the School, and both of them failed to obtain the ranger's certificate; they have therefore merely received appointments as temporary foresters.

There is only one sanctioned rangership in the School Circle attached to the Saháranpur Division; but it is expected that three men from the School belonging to this circle will obtain the ranger's certificate in 1885, and sanction for two temporary rangerships will then be applied for, unless the permanent establishment scheme sent up by Major Bailey be sanctioned.

When we consider the serious timber frauds by lessees with the connivance of the subordinate staff in the Dún, the complaints of the zamíndárs in Jaunsár about the difficulty in getting their free grants of timber, and the want of supervision of contractor's work which has come to light in Saháranpur, it is evident that divisional officers must be supported by reliable subordinates if really good work is to be done, and it is only by engaging men of fair education and good character and by giving them prospects of promotion as rangers that this class can be supplied.

22. *Native non-commissioned officers.*—No native non-commissioned officers have as yet been appointed to the subordinate forest staff. In order to provide a certain number of forest guards, the question of employing a few pensioned sepoys is worth considering, and since the close of the year, a few men of this class are being tried in the Dún Division.

In France only time-expired soldiers or sons of former forest subordinates were admissible as forest guards in 1872, and there is no doubt that years of discipline and the fear of losing their pension would be strong incentive to honesty.

The pay of forest guards is frequently a mere pittance and insufficient when a man is married, and the addition of the pension would enable the man to live in comfort.

23. *Services of subordinate staff.*—As the foresters are men of the same class as the forest guards, they do not exercise the proper authority over them which a man of superior education would possess, and are in general quite untrustworthy.

Out of 10 foresters employed in the Dún Division only the two men who passed through the school, but failed to obtain rangers' certificates, can be in any way depended on.

Mr. Smythies reports that in Saháranpur one forester has died, and that of the other two, one is worse than useless, and the other, though active and intelligent, cannot always be trusted and has allowed a contractor to carry out the demarcation work in an inadequate manner.

In Jaunsár the foresters have given satisfaction departmentally, except in one instance; but complaints have arisen about their causing unnecessary delays in giving free grants of trees to the zamíndárs.

Mr. Moir has been obliged to dismiss 4 foresters and 5 forest guards from the Tons Division for desertion of post, cheating, and gross disobedience of orders.

He proposes that foresters should be enrolled as in the case of the police, as no adequate punishment can now be inflicted on men deserting important forest posts without leave.

Many of the forest guards in the Circle are very useful men, and if only they could respect their immediate superiors, we should have little difficulty in securing a good staff of guards.

24. *Students of Forest School employed in the forests.*—Eighteen students at the Forest School were employed during the working season of 1883-84 in the forests of this Circle.

The contrast between the cheerful intelligent work done by forest students, even of distant provinces, with that done by the old class of foresters is most marked, and a great deal of the improved work done of late is due to their exertions.

It is not, however, proposed that students should any longer be put in charge of works in the Circle, but in future they will pass the time in the working season with the Deputy Director in learning theoretical and practical forestry.

25. *Formation of beats and ranges and control thereof.*—The scheme for the formation of beats and ranges promised by Major Bailey in last year's report has been drawn up and submitted with the revised list of establishments for the orders of Government.

26. *Office establishment.*—I have every reason to be satisfied with the zeal and intelligence of the Head Clerk of the Direction Office, Babu Kusheshwar Mukarji.

The 2nd Clerk is not sufficiently acquainted with English and will be transferred to a divisional office, as the 2nd Clerk should be able to assume charge of the whole work in case of necessity.

In the Dún office the Head Clerk has been much overworked, but Mr Fernandez has improved the system of accounts by which he hopes to reduce his work. At the same time the office requires strengthening.

Mr Smythies is not satisfied with the work done in the Saháranpur office. In the hill divisions the offices have worked well

Major Bailey has submitted to Government proposals for improved pay for the office establishments, and there can be no question that long and tried servants of Government should have some promotion, however tardy, to look forward to.

27. *Uniform and badges.*—Proposals have been sent in to Government regarding uniforms for the subordinate staff, but orders have not yet been passed.

28 *Securities.*—There is great difficulty in taking security from men on low pay, and the question of taking security from the members of the subordinate staff is still unsettled.

General protection and forest law.

29. *Prosecutions.*—The result of the prosecutions before Magistrates for breaches of forest rules was as follows:—

Year.	Convictions		Acquittals	
	Cases.	Persons	Cases.	Persons
1882-83	12	19	4	21
1883-84	7	19	8	20

Three cases were pending from the former year, and there were 14 new cases, two of which are still pending in the Dún Division, the number of new cases last year having been 18.

Of the 14 new cases 4 were for injury by fire, 9 for unauthorized felling, and one was for illegal shooting in a closed forest in the Dún, in which the defendant, a European, was fined one pice only by the Magistrate, as he pleaded that he was sitting up in a machan near the edge of the closed forest to kill a tiger.

A fire had broken out in the Rámgarh forest close to this machán, but no evidence connecting the defendant with the fire was obtainable

Conviction was obtained in 7 cases involving 19 persons, and 8 cases involving 20 persons were dismissed by the Magistrate. Of these three were in the Tons Division, and Mr. Moir complains that it is impossible to get conviction in the numerous sleeper thefts on the Jumna, and that wholesale robbery of sleepers, principally those of private merchants, continues. Thefts on the Sirmúr side of the river are probably more numerous than in British territory and are equally unchecked.

At the end of the year Mr. Moir was gazetted Assistant Superintendent of Hill States, with powers of a Magistrate, by the Panjáb Government. The extent of these powers were not specified during the year owing to an oversight in the Panjáb Secretariat.

Besides the cases under the Forest Act, some serious cases under the Penal Code occurred in the Sahárunpur Division, in one of which three men were sentenced to three years' imprisonment each by the Sessions Judge for voluntarily inflicting hurt on a forest guard. One of these men was subsequently released by order of the High Court.

In another case a forest guard was tried for the theft of Rs. 135 from a chauki chest, but the evidence was not sufficient to obtain a conviction.

30. *Cases compounded under section 67 of the Forest Act.*—Seventy-eight cases involving 198 persons were enquired into by forest officers under section 67 of the Act, and in 68 cases involving 123 persons compensation amounting to Rs. 558-10-0 was accepted. Of this sum Rs. 62-14-0 was handed over to the Rája of Bashahr under the rules of the Bashahr lease.

The only case requiring comment was for firing a closed forest in Sahárunpur Division. In this case a pleader of Mussoorie, who had deliberately fired the forest, paid Rs. 25 compensation.

The District Superintendent of Police had been enquiring into this case and was dissatisfied at its being stopped, which was done at Major Bailey's wish; and in future it may be better, in a case referred for enquiry to a Magistrate or to the police, not to take compensation, but to allow the enquiry to go on.

31. *Relations between the people in the villages on the borders of the forests and the forest officials.*—Owing to the bad class of subordinates whom we employ, it is difficult to ensure much sympathy between them and the villagers.

In the case of the Tháno forest in Dehra Dún, the villagers have agreed, in return for certain privileges, to assist in fire conservancy; but this is a solitary instance, and fire conservancy is rendered very expensive in the Dún by the necessity of maintaining labor gangs in the forests to assist should a fire break out. Such labor gangs might be dispensed with, except in the more remote forests, were villagers readily available.

In Jaunsár, Mr. Ross, the Settlement Officer, complained of vexatious interference of the forest subordinates with the villagers, chiefly in connection with free grants of timber, the foresters who had the marking of the trees to do unnecessarily delaying the work.

This has been remedied by allowing inferior kinds of timber to be removed, except in khatts near Chakráta, without the trees being previously marked, and for the better kinds, by the divisional officer fixing a date for each syana on which his trees should be marked.

All deodar trees granted free to villagers will also in future be marked by the divisional officer.

In the Tons Division, Mr. Moir reports that relations between the people and villagers have somewhat improved, especially in Bashahr.

He will also in future endeavour, by promise of rewards, to interest the villagers in fire conservancy, which is so difficult in chír forests.

32. *Shikáris and wild animals.*—Destruction of game goes on steadily in the Dún, but it is a matter for congratulation both to the agriculturists and the Forest Department that deer should not be too plentiful. At the same time the closing of some of the forests enables a certain head of game to be kept up, and it is admitted by all sportsmen to be very useful.

The rules regarding shooting in closed forests have been so far relaxed that in case of sufficiently heavy cold-weather rains, the closed forests can be opened for shooting by the Conservator for a period beyond the prescribed date for closure. Special permission can also be given by him to sportsmen to kill tigers or other harmful animals in closed forests.

In Saháranpur, Mr Smythies reports that deer and pigs in the closed forests are becoming very abundant, and that the damage done by them to crops is a source of great annoyance to the villagers

Some special measures should be taken and large battues organized next cold weather

In the Jaunsár Division, in the Rama-Saráí valley in Tehri Garhwál, there is a dreaded man-eating tiger which has killed 10 people since January. The Raja has offered a reward of Rs. 100 for his destruction.

The Gujars have abandoned the Tons valley and go on into Bashahr and other hill states on account of their losses by tigers both in men and buffaloes.

Owing to the practice of killing animals in the snow, game, except pheasants, is getting scarce in the hills.

There has been a large herd of elephants in the Dún and Saháranpur forests, and in the latter they have destroyed a number of pucca boundary pillars and bamboo clumps. Their presence causes a general feeling of insecurity, and the danger of attack whilst going about in the forests is considerable. It is to be hoped that they may be either hunted or driven away.

Forest fires

33. *General account of protection of forests from fire*—The area in which protection from fire was attempted, that in which it failed or was successful, and the total cost to the end of June, 1884, are given below with the figures of the previous year.—

Divisions.		Area attempted to be protected	Percentage to entire area.	Failures	Successfully protected	Percentage of failures to area attempted	Cost
							Rs.
Dehra Dún...	1882 83	41,027	23	1,248	39 779	3 0	24,351
	1883 84	47,770	27	149	47 621	0 3	29,024
Saháranpur...	1882 83	34,091	20	285	37,806	0 8	8 870
	1883-84	39,155	20	612	38 543	1·6	12,461
Jaunsar ..	1882-83	38,314	48	340	37,974	0 9	3 461
	1883 84	38,814	48	505	37,719	1 6	3,842
Tons	1882 83	32,686	66	1,089	31,597	3 0	4,138
	1883-84	32,686	66	1,590	3 ,096	4 8	4,930
Total .	1882 83	150,118	30	2,962	147,156	1 9	40,820
	1883 84	157 925	32	2,946	154,979	1 8	50,257

From the above figures it will be seen that the area under protection has been increased by 7,823 acres, and that the cost of the season's work was Rs. 9,437 as against Rs 7,659 last year The percentage of the total area of the forests of the Circle under protection is now 32 instead of 30 as in last year, and 1·8 per cent has been burnt, and this would have been much smaller except for the large fires in chír forests in the Tons Division, where a better system will be attempted in future, the villagers bordering on the forest being paid for successful fire conservancy The average cost of the season's work per acre successfully protected was as follows :—

	1882-83.	1883 84
	As	As
Dehra Dún	1 4	1 6
Saháranpur	1 2	1 7
Jaunsár	0 2	0 16
Tons	0 4	0 4
The Circle	0 8	0 97

The rate has therefore increased for the Circle and also in the Dun and Saháranpur Divisions, and has been reduced in Jaunsár and remains unaltered in the Tons, where

the higher rate than in Jaunsár is due to the cost of protecting the chir forests, whilst in Jaunsar only deodar and fir and oak forests are protected.

The increased rates in the Dun are due to want of proper establishments to supervise the work, and to the large increase (7,594 acres) in the area in which protection was attempted for the first time Mr Fernandez's report is given below, in which he explains how he proposes to reduce the expenditure considerably, but it is not quite clear how fires which might break out in the forests more remote from villages would be extinguished, if the gangs of coolies were not entertained during the dry season.

The reason for increased rates in Sahárunpur are explained by the divisional officer as follows —

Isolated areas have been added to the area under protection since 1881 82, *viz* Sendhli, Bantawála, Rira &c, which increases expenditure per acre very much on account of lines specially cut and fired, and guards, for a small area

This year the fire lines were cut wider and an extra tindal was put on and extra measures generally were taken on account of the extraordinary dryness of the season

The *rates* for clearing have been *reduced* since 1881-82, but mileage has increased out of proportion to the increased area

Tracings showing the results of fire conservancy have been sent in from all divisions except Jaunsár, but owing to the small scale map of the School Circle forests under preparation in the Forest Survey Office not being complete, pending the settlement of the limits of ranges, a fire conservancy map cannot accompany this report —

DEHRA DÚN *Bullawála* —No changes made in area Protection complete Cost reduced from Rs 1 180 last year to Rs 911

Ramgarh —No changes made in area since last year Protection complete Cost risen from Rs 704 to 809

Thano —Additional area of 437 acres taken up since last year, area attempted in which was really 4,997 not 5,180 acres A small fire crossed in May when line was strewn with dead leaves, burning 77 acres of principally grass land establishment alone to blame

Chandrabani —Same area as last year Protection complete Expenditure reduced from Rs 433 last year to Rs 315 Great credit due to Babu Karuna Nidhan Mukarji and forester Akbar Ali

Nichla Song and Bahera —Same area as last year While line was being fired in February fire spread into the forest over 72 acres owing to carelessness of establishment Expenditure risen from Rs 717 to Rs 834 Cost of works in Nichla Song excessive, nearly Rs 191 per square mile

Nagsidh —Under protection for the first time—portion of Lachiwála block Protection complete Cost excessive, Rs 145 per square mile, obviously due to dishonest forester (Sartaraz Khan), since dismissed

Motichur —Entire area of Kharkhari block taken up for first time A fire occurred along the boundary line spreading over so insignificant a width that it has not been noticed in the appended statement Otherwise protection complete

Dhakot —It was intended to bring the entire area (4,836 acres) of this forest under protection; but measures were from unavoidable circumstances undertaken too late and before work had been proceeded with to any very appreciable extent the attempt was abandoned

General —The year was extraordinarily dry owing to very short winter rains, which produced scarcity of grass and water in the adjoining districts The risk of failure was thus very great, and hence the results obtained seem very satisfactory The percentage of failure was less than one-third The cost per square mile has risen from Rs 86 3-0 last year to Rs 97 9 0 per 1,000 acres actually protected This to be accounted for by the drier seasons and also by the taking up of an area in Nágsidh for the first time, the cost of protecting which tract and the area in the Nichla Song block has been absurdly high It will be seen from an inspection of the appended statement that what chiefly swells up the expenditure is the cost of firing the lines and the wages of the establishment I speak from my experience when I say that the second firing ought to cost next to nothing in other words, it should be effected almost entirely by the fire and forest guards, instead of, as at present, by a large gang of coolies whose entertainment runs away with money not only from under the head of fire conservancy but also from other heads, since unnecessary or far from urgent works have to be carried out simply to find employment for these men during the intervals that they are not helping the fire conservancy

establishment. This arrangement also brings about great waste of time (due to the continual change of occupation) and, therefore of money also.

The fire guards are also too numerous for the small area each man has to look after

I feel convinced that if the entire question is gone into thoroughly and the experience gained in the Central Provinces and Berar, the most successful Provinces in India in respect of fire conservancy, is utilized, the expenditure per 1,000 acres actually protected will be reduced from the present enormously high figures to not more than Rs 20

Statement regarding fire conservancy during working season of 1883 84.

Forest tracts	Area			Clearing lines			Firing lines			Establishment.		Extinguishing conflagration		General results.	
	Attempted to be protected	Failures.	Actually protected.	Total length.	Total cost	Cost per running mile	Total length.	Total cost	Cost per running mile.	Total cost	Cost per 1 000 acres actually protected.	Total cost	Cost per 1 000 acres.	Total cost	Cost per 1,000 acres actually protected.
Bullawala ..	14,503	...	14,503	55	208	3 8	157	515	3 3	188	13 0	..	.	911	62 8
Ramgarh	6 132	.	6,332	65	237	3 6	81	441	5 4	131	20 7	..		609	126 2
Thano ..	5,434*	77	5,357	47	166	3 5	82	427	5 2	240	44 8	33	428 6	866	161 6
Chandrabani	4 902	.	4,902	15	56	3 7	32	100	3 1	159	32 4	..		315	64 3
Kansrau { Nichla Song	1,600	72	1,528	15	103	6 9	73	265	3 6	85	55 6	2	27 8	455	297 8
Kansrau { Bahera	8 510		8,510	21	94	4 5	39	212	5 4	73	8 6		...	379	44 5
Nagsidh ..	2,560		2 560	18	242	13 4	38	218	5 7	120	46 9			580	226 6†
Motichur ...	3,929		3,929	40	135	3 4	36	145	4 0	69	17 6	...	.	349	88 8
Total ...	47,770	149	47,621	277	1,241	4 5	538	2,323	4 3	1,065	22 4	35	2,349	4,664	97 9‡

* 437 acres under protection for the first time
† Under protection for the first time
‡ Percentage of failures = ¼

SAHARANPUR—The following tracts were burnt —

An area of 62 acres in the Patri forest was burnt on the 20th January, probably owing to incendiarism, but no evidence was obtainable against any person The damage done is reported to be slight.

Three small patches of an area of 30 acres were burnt in the Dhaula block, and a pleader of Mussooree, who was out shooting at the time, paid Rs 25 compensation, as these fires were lighted by his orders

A large area of 480 acres was burnt in the Kalushahid bamboo forest of the Rani block on the 28th April The forest subordinates, including two students at the Forest School, worked hard and well in endeavouring to extinguish the fire, but a strong wind and excessive drought prevented their getting the better of the fire till the above large area had been burnt Mr Smythies considers the damage due to incendiarism, but failed to discover the offender The damage done was principally to the bamboos and grass

JAUNSAR.—It was attempted to protect an area of 38,314 acres, no alteration having been made since the previous year.

The results have not been so favourable as during last year, the total area burnt being 595 acres against 340 acres during 1882-83

The percentage of area burnt is 1 5 against 0 9 during the year

The usual fire lines were constructed and the usual precautions taken, and owing to the early fall of snow in November and to the early setting in of the rains, the season of 1883 84 may be said to have been particularly favourable for fire conservancy

The following fires have occurred in the Jaunsar Division —

I Mathangra, 50 acres burnt—This fire occurred through the carelessness of an officer of the Northumberland Fusiliers Little damage was done and the matter was compromised, under section 67, for Rs. 25

II. One of the Jaunpur Forests, 14 acres burnt—Fire took place through the carelessness of the neighbouring villagers

III Kalsi Forests, 36 acres burnt—Fire was due to the carelessness of a zamindar whilst working in a neighbouring field. The matter has been compromised for Rs 10

IV Konain Forest, 15 acres burnt —This fire was caused by some villagers whilst burning a dead body who carelessly allowed the fire to extend to the neighbouring forest The divisional officer has called upon the villagers to pay Rs. 35 compensation

V Shikáru Forest, Tehri Garhwál, 140 acres burnt —This was the most extensive of the Jaunsar conflagrations and was caused by a fire having crossed the fire line from outside, the line having apparently been insufficiently burnt and probably got covered with dry leaves.

The total amount expended on fire conservancy during the season under report was Rs 361, which may be said to be a mere trifle in comparison with the expenditure incurred in other divisions of the School Circle

Tons.—A fire broke out in the Chatra chír forest on the left bank of the Tons river, above the village of Honol, on the 23rd of March The forest guards were then engaged in burning fire lines in the Kunigádh; fire was then seen to originate in the Chatra forest at a point within the boundary about 200 yards from the village of Chatra, and it is therefore presumed that the fire was due to incendiarism, but the actual culprits have not been discovered The forester and forest guards with a gang of 50 coolies succeeded in extinguishing the fire that night, but not till 560 acres had been burnt.

The fire in the Kunigádh chír forest broke out on the 27th of April last, being first observed by the forest guard at Thadiár, and shortly afterwards Mr Moir with a body of men was on the spot, but in spite of their working all the night of the 27th the fire was not extinguished till the evening of the 28th The fire broke out in the middle of the forest, and was probably the work of an incendiary. It extended over 1,000 acres Mr Moir reports that Sadanand, forest apprentice, rendered great assistance and showed considerable presence of mind in extinguishing the fire

Besides these two large fires, two small areas of 15 acres each were burnt in the Deogarh and Deota forests, regarding which no remarks have been made by Mr Moir.

Strenuous efforts will be made in the future to prevent the occurrence of these fires in the chír forests, and the divisional officer should reach Deota as early as possible every year after the snow has melted, and the assistance of the neighbouring villagers be secured for fire conservancy

Grazing and fencing

34 *Collection of grazing dues* —Proposals for revision of the rules for collection of grazing dues in the Dun and Saháranpur were drafted by Major Bailey, and have been submitted to Government through the Commissioner of Meerut, but no orders have as yet been passed.

The main point in these draft rules is that the grazing dues payable by each village should be fixed for a term of three years, and that free headloads of fallen dead fuel may be granted to all villagers paying grazing dues.

Such free headloads are allowed to all travellers in the Dun, and it was considered a hardship that villagers paying grazing dues should not also enjoy the privilege, in which the use of the axe should be prohibited, only dead fallen fuel being collected by hand. Each herdsman will have a badge showing the number of cattle he is authorized to graze.

The new rules drawn up by Major Bailey and sanctioned by Government for grazing of outsiders in the forests of the circle are given in an appendix and have already been referred to.

The complaints of the villagers in the hill divisions regarding the Gujars' cattle, the number of which increases every year, and to which reference was made in last year's report, are as loud as ever, and a report has been sent to Government, through the Commissioner of Meerut, by the Officiating Conservator of Forests, proposing to limit the number of buffaloes in Jaunsar to that actually required for the station of Chakráta and for the forest officers at Deota and Deoban and the work-people employed by them, and to insist on Gujars going to the hill states other than Tehri-Garhwal, proceeding by routes outside Jaunsar. It is believed that the Raja of Tehri does not wish Gujars to graze in his territory, but if he desires to have a certain number, they may be allowed to proceed through Jaunsar by a fixed route.

The grazing of Gujars in Bashahr is encouraged by the Rája, who is entitled to half the grazing dues, the remaining half being claimed by the Forest Department. The Rája claimed the whole of the dues, on the ground that the buffaloes only grazed outside the forests, but this is certainly not the case.

The grazing of these outsiders is strongly objected to by the villagers, and it has been proposed to limit the number of buffaloes in our part of the Bashahr forests to 500, and the question is now before the Deputy Commissioner of Simla for disposal, but it is believed that he wishes to exclude the Gujars altogether from Bashahr.

35. *Exclusion of cattle, sheep, and goats.*—There has been no change in last year's arrangements, except that in the Jaunsár Division a portion of Thona forest, area 250 acres, has been re-opened departmentally to grazing at Mr. Ross' suggestion; and also the small first class forest of Koti Báwar, 100 acres, where little reproduction had taken place, for cattle only, sheep and goats being still excluded during the rains.

The forest area in Jaunsár closed to grazing is therefore 15,011 acres. The Kandár block of the Lambatách forest was also opened for cattle-grazing during the rains, and Mr. Moir reports that the prospects of natural reproduction have been improved by the removal of a large quantity of matted turf and grass, and that the forester states that the deodár seedlings have not been injured by the feet of the cattle.

Natural reproduction.

36. *General description of the forests.*—The forests of this Circle may be subdivided as follows, the lower forests having been thus classified by Mr. Fernandez :—

DECIDUOUS PLAIN FORESTS, ELEVATION UNDER 1,000 FEET, AS IN PATRI FOREST.	Dhák (*Butea frondosa*) with scattered banyan (*Ficus bengalensis*), and kharak (*Celtis australis*) in damper places.
LOWER FORESTS, ELEVATION 1,000 FEET TO 3,000 FEET.	Sal—more or less pure. Sál—mixed. Sain (*Terminalia tomentosa*), the principal accessory species Dry forest of inferior species. Bákli (*Anogeissus latifolia*) and sandan (*Dalbergia sissoo*) are the best trees in this class of the forest. Moist forest ditto, in which tun is the best tree. Khair and sissu forest. Bamboo ditto. Inferior scrub. *Randia dumetorum* and *Zizyphus xylopyra* being the commonest species Chír (*Pinus longifolia*) forest. Grass land forest.
MIDDLE FORESTS, 3,000 FEET TO 6,000 FEET.	Chír forest. Dry lower hill forest. Semla (*Bauhinia retusa*) Bákli, *Engelhardtia* and other species Moist forest of inai (*Q. annulata*), *Rhus panjabensis*, *Alnus nepalensis*, *&c.*, *Cedrela serrata*, *Machilus odoratissima*, and *Phœbe lanceolata*. Bán (*Q. incana*), borass (*Rhododendron arboreum*), and ayar (*Andromeda ovalifolia*) forest.
HIGHER FORESTS, 6,000 FEET TO 12,000 FEET.	Deodar and blue pine (*Pinus excelsa*) with bán and moru (*Quercus dilatata*) forest. Spruce (*A. Smithiana*) silver fir (*Abies Webbiana*), and blue pine, with deodar, kharsu (*Quercus semecarpifolia*), and birch (*Betula Bhojpatra*).

In the higher forests, any of the species mentioned may be found pure, except the moru; and in very dry regions the blue pine is found higher than the other conifers, though it is generally the silver fir which attains the greatest altitude.

Cypress is occasionally found on rocky places, either pure or mixed with deodar or spruce, but is comparatively rare in the Circle.

Generally speaking, reproduction is very good in all closed forests in the Circle, except in the higher forests of spruce and fir and in sissu and khair forests, where

reproduction is confined in the case of sissu to new kutcha land in the river-beds, where seedlings grow up abundantly. The reproduction of khair in grass land above the river-beds is generally abundant in the absence of fires

In forests annually burned, little (if any) improvement occurs.

On account of the number of species associated with deodar special measures are necessary to encourage its reproduction, but wherever it forms a large proportion of the crop, seedlings spring up densely, provided the undergrowth be not too dense.

Of all species, the blue pine is probably the best reproducer, as it fruits at a very early age and the seedlings do not suffer much from grazing; but fire protection is essential to its welfare, as its seedlings cannot resist fires to a certain extent like those of chir

Dehra Dún—Mr. Fernandez remarks as follows regarding the reproduction of bamboos in the Dun:—

In this class of forest natural reproduction is of course only possible at long intervals when the bamboos flower gregariously In the Dun, this gregarious flowering has occurred during the past year in the Kharkari block where numerous bamboo seedlings are coming up in the midst of the old clumps which have offered them a good seed bed and now serve as a protection against cattle. Very few bamboo seedlings can be found outside the old dead stumps

The Dun bamboo (*Dendrocalamus strictus*) blossoms every year partially, a clump here and there yielding seed, so that partial reproduction goes on slowly without a general seeding of the clumps

Saháranpur—The bamboos have seeded largely last year in the Maiapur block in the Saháranpur district, and a number of seedlings are now visible in the old bamboo clumps and the thorny bushes which accompany them

Mr Smythies reports that reproduction in the Saháranpur forest cannot be described as *backward* and *scanty*, as was done in last year's report

Taking the division as a whole, the burned and unburned portions, it may be said that the natural young growth is fairly satisfactory whilst in the closed sál forests it is forward and profuse

Regarding the results of protecting the Ratmau basin Mr Smythies states—'The result of protecting the Ratmau basin for four years is remarkable and will be dealt with in a special report The main results may, however, be given here The sides and slopes of the hills are now clothed with grass and young seedlings, and the water no longer rushes down, carrying silt with it; the consequence is that the floods in the Raus have been reduced in volume and force, the water channels have become narrower and deeper, and the beds are stocked with grass and thousands of sissu and khair seedlings The little silt which is washed down together with debris is caught by the grass tufts, and the tendency is for certain banks in the bed of the stream to be raised while the water channels are deepened. This is the result which was anticipated, though it was not expected that four years would make such a difference

As long as fire is kept out of these forests we may be said to have gained complete control over the Ratmau torrent

These remarks are of special interest now that the protection of the Hoshiarpur chos has been advocated

In the Patri forest, the reproduction of the dhak tree (*Butea frondosa*) is active, and it progresses as well in the open as in the closed portion of the forest, in spite of fire, frost, and cattle

JAUNSÁR—In Jaunsár Mr Hearle remarks that there was a scarcity of seed of the principal species last year.

The ringals which seeded in 1882 have produced numerous seedlings, which have sprung up everywhere abundantly

The rapidity with which the blue pine reproduces itself at elevations below 8,000 feet is astonishing, and all the bare lower ports of the Asmari, Kanasar, Thona, Kanjatra blocks are being rapidly clothed with forest growth, including generally a good sprinkling of Deodar

TONS—Mr. Moir reports a similar scarcity of seed in the Tons Division

He wishes to add nothing to his remarks about the deodar reproduction given in last year's report, and concerning chir forest has made the following observations—

We had occasion to visit portions of the chir (*Pinus longifolia*) forests situated on the banks of the Tons a short time ago, and found that, notwithstanding the outbreak of fire in these forests from time to time, reproduction is on the whole fairly satisfactory. The reason of this is that, owing to the thickness of the bark of the chir plants after they attain a certain size, they can resist a moderate fire, and even

throw out new shoots from the roots in some cases when burnt down to the ground. The site of Mr. Spread's fellings of 1881-82, situated in compartment III, Kunigádh forest, was carefully examined and a large number of seedlings found all over the ground, many of which have sprung up since the fellings took place.

Artificial reproduction.

37. *General.*—Speaking generally, natural reproduction is so good in all closed forests in this Circle that plantations are not required except in sissu forests, where it only takes place on the lower areas which are liable to be flooded, and in certain deodar forests, where, as the deodar is the only tree utilized, there is danger of its being suppressed by its associates. It is also important to introduce deodar, as the only hill forest tree at present marketable, by plantations into forest tracts apparently suitable for its production, but in which it does not now exist.

In deodar plantations, blue pine or spruce, according to circumstances, but generally the former, will be found useful nurses, and should be planted out or sown with the deodar.

As explained last year by Major Bailey, artificial plantations are only undertaken in forests protected from fire and closed against grazing.

Besides the deodar plantations which are being extended in the hill divisions, a certain area of the higher fuel forests above Chakráta is being planted with karshu and spruce, and sowings of silver fir will also be attempted, as its growth is more vigorous than that of spruce, and it stands shade better and can therefore be planted under the trees reserved in the fellings where natural reproduction has hitherto failed to produce seedlings.

Some chír is also being sown and planted in the Chakráta and Landour cantonment blocks. In the Dún and Saháranpur districts a few small areas have been planted or sown successfully with sál and sain, and plantations of sissu and khair have been attempted, but have hitherto failed in the Dún.

The irrigated sissu plantations at Firozepur in the Patri forest made in 1874 by Mr. Angus Campbell have succeeded admirably, but were very expensive, and it is not probable that they will prove remunerative.

It is probable that tún plantations would pay in the Dún, as the tún grows rapidly on moist soils and its timber is of considerable value. Bamboo plantations on grass land near Hardwar are also likely to pay and will be undertaken.

The area of plantations in the circle was—

On 1st April, 1883.	On 1st April, 1884.	Increase.
1,444½	1,501½	57

The classification of these plantations according to species is as follows :—

	Acres.
Deodar	542
Deodar and blue pine	139
Deodar and spruce with a few karshu	548
Deodar, chír, blue pine, and bán	69
Moru oak	51
Ban do	15
Spruce	4
Hill plantations ...	1,368
Sál	29
Sissu (chiefly)	80½
Sissu and khair	11
Bamboo, mahua, and khair	13
Total plantations ...	1,501½

The area actually added during the year was :—

	Acres.
Saháranpur	17
Jaunsár	42
Tons	12
Total ...	71

But 14 acres have been struck off the Dún list as incomplete, so that the net increase is only 57 acres.

The expenditure under A.VIII.*d* during the year was Rs. 3,238, of which Rs. 1,270 on account of unsuccessful plantations and Rs. 2 on account of the Kanjatra nursery have been omitted ; also Rs. 33 which were erroneously charged to A VIII.*d*, being Rs. 8 for seed sent to Ajmir and Rs. 25 for work in Chakráta fruit garden, so that the final figures stand thus—

To end of 1882-83.	To end of 1883-84
Rs.	Rs.
20,297	22,232

In addition to the work referred to above, roadside planting and pruning was continued in the Dún, and the Lachiwala planting ground planted up with mango trees by Babu Karuna Nidhan Mukarji, the expenditure being met from the district funds.

38. *Landour cantonment plantation.*—A report on the Landour cantonment plantation, which is carried on under the supervision of the Conservator, Forest School Circle, has been received from Lieutenant-Colonel Stockwell, the commandant, which is given below :—

In May, 1883, Mr W R Fisher, Deputy Conservator of Forests, School Circle, Dehra Dún, visited Landour and inspected the plantation. He made many valuable suggestions regarding subsequent planting out of young trees and the preparation of nursery beds, &c , all of which were noted and acted on with apparently improved results in the germination of seed and growth of the young plants.

A variety of seeds were supplied by Mr. Fisher in June, and were at once sown in prepared nursery beds situated near the Roman Catholic cemetery These are, for the most part, germinating and thriving well.

In the month of July, 1883 (during the rains) the following number of young trees, *viz.*, deodar 3,400 and chir 900, all grown from seed planted in the Landour nursery beds, were transplanted into holes prepared for them in the valley between the guard-room and Roman Catholic cemetery. The holes are in lines six feet apart, the lines being about fifteen feet from each other The majority of the young plants appear hardy and strong and show signs of having taken root well.

Two hundred young trees were received on 24th July from the Government Botanical Gardens, Mussoorie, which were planted out in the same situation as those specified in para. 3, and with good results.

Three hundred young plants were sent over from the Jaunsar forest in July also, and were planted out in the locality mentioned in para 3. These trees are flourishing well.

The plantation is well looked after and the young trees carefully attended to

The expenditure for the year under review was Rs. 451-8-0, and the balance in hand on 1st July, 1884 was Rs. 1,355-0-1.

The upper portion of the present block is almost completely stocked with plants of deodar, blue pine, and other trees, and in the lower portion chír has been very successfully sown in patches.

38*a*. *Separation of old from unsuccessful plantations.*—Major Bailey proposed in last year's report to separate old and successful plantations, on which no further expenditure was to be incurred, from others ; but this has not been done in any of the divisional reports, and it is now too late to do so, although a circular has been sent round calling for the information.

Cutting of climbers.

39. In the Dún climbers have been cut as follows :—

	Acres.
Bullawála forest	2,560
Ramgarh forest	5,120
Chandrabani	1,920
Total ...	9,600

or 15 square miles, at a total cost of Rs. 347, or Rs. 23-2-0 per square mile. In the Saháranpur Division climbers have been cut out of 1,600 acres, in Rasulpur and Ganjatban blocks, at a cost of Rs. 64, or Rs. 25·6 per square mile.

Mr. Smythies reports that innumerable seedlings of Millettia have sprung up in the compartments of Lakarkót which had been cleared of climbers, and that the whole area will have to be gone over again.

Forest gardens.

40. *General.*—The gardens are kept up at Kaonli, as well as in the Forest School compound, and at Chakráta.

41. *The Kaonli forest garden.*—In the Kaonli garden attached to the Dehra Dún Division the principal work, for the last three years, has been to maintain a large mulberry nursery, which was established for the Superintendent of the Dún at the request of the Director of Agriculture.

During the year, about half a lakh of mulberry plants were distributed to the zamindars, and there are still about a lakh of plants in the nursery. Besides these, seeds of—

Eucalyptus viminalis,		Acacia pycnantha,
„ globulus,		„ decurrens,
	Acacia Melanoxylon,	

and some others were sown and germinated. The following plants were distributed:—

Mangos, 150, planted on district roads.	Sissu, 50, planted on district roads.
Jack, 50, given away.	Chír, 60, sent to Principal, Thomason College, Roorkee.
Tún, 150, planted on district roads.	Chír, 61, planted out in Forest School ground.

The total expenditure on the garden was Rs. 384, of which Rs. 191 was contributed by the Agricultural Department on account of the mulberries.

42. *Garden in Forest School compound and on municipal land attached to it.*—During the year, the whole of the old nursery, with the exception of about 15 poles, was given up on the acquisition of the municipal garden and of the large field situated between that garden and the Rajpur road. The soil within that small area was dug up to a depth of 1½ feet and screened so as to get rid of all stones, broken bricks and tiles. Manure was then added and seed beds were laid out on the system followed in Europe. These beds were sown with different species of forest seeds, the majority of which germinated.

The rest of the area was converted into a lawn dotted with a few trees.

The lawn to the north and east of the school building was kept up as usual, but some more ornamental plants were put out to fill up vacant spots, the object being to grow plants to illustrate the botanical lectures.

During the rains this lawn is regularly weeded, about once a fortnight, without any cost to Government by grass-cutters, who work at weeding for an hour and a half each, and are then allowed to cut grass without payment, and the contrast of the quality of the grass, as compared with that in other compounds in Dehra, is very marked.

The whole of the land, measuring about 16 acres, including the municipal garden and adjoining field, was acquired for Rs. 523 from the former lessee, and is held on payment of an annual rent of Rs. 181 to the Dehra municipality.

The old road, narrow and winding, between the garden and field was abandoned, and a new straight road was laid out, joining the end of the old parade-ground with the kutcherry road. This resulted in an extension of the area of the garden and a corresponding reduction of the area of the field.

A portion of the garden was laid out in nursery lines, into which seedlings from the school garden were transplanted by the students as a part of their practical work.

The remainder of the area of the garden was treated as a fruit garden. Some pear trees received from Ránikhet were planted out, and the vines, which had been neglected, were taken in hand.

The receipts from sale of fruits, &c., amounted to Rs. 32.

The open field adjoining the nursery was fenced round and thoroughly cleaned and weeded in the same way as the school compound, a few roads were laid out, and some ornamental shrubs and specimens of fruit trees planted out.

The total expenditure on the grounds connected with the Forest School has been as follows :—

	Rs.
Establishment	405
Carriage of plants	79
Watering plants	65
Weeding and clearing ground	351
Making rose hedges	114
Nurseries	68
Miscellaneous	269
Total ...	1,351

43. *Chakráta forest garden.*—In the Chakráta forest garden Mr. Hearle reports that the fruit trees introduced in 1882 promise to succeed well, and more will be obtained from Ránikhet.

The following species were sown and germinated :—

Acacia implexa.	Casuarina.	Pinus Strobus.
" decurrens.	English oak.	" sylvestris.
" pycnantha.	Turkey oak, (Q. cerris.)	" Pinaster.
Chamærops Martiana.	Abies Picea.	
Eucalyptus, 6 species.	Pinus Laricio.	

Seeds of English ash, sycamore, plane, elm and beech were sown, but failed to germinate; whilst some larch seed germinated, but the seedlings all dried off.

Both the English and Turkish oaks are doing well.

The *Acacia melanoxylon* thrives in Chakráta, but *Broussonetia papyrifera*, whilst looking healthy, has a slower growth than in the Dún, where a plant from seed sown in 1882 had already attained a growth at base of 1½ feet with a height of 25 feet before the stem was blown off at 16′ 9″ from the ground.

The cost of the garden during the year was Rs. 334.

44. *Experimental sowings of exotic trees at Deota.*—The eucalyptus and other exotic trees planted in the rains of 1882, and referred to in para. 13 of last year's report, have all died, except five or six, which are looking sickly.

A selection of seeds of European forest trees were sown, but only those of the scotch, cluster and Weymouth pines, have germinated, and the plants will be carefully planted out in the rains.

45. *Coppicing. Dehra Dún.*—In the Bullawála forest an area of 320 acres, part of a block burned in 1882, was operated on before the rains of 1883, all injured poles and saplings being cut back to the level of the ground at a cost of Rs. 94, and 1,700 saleable poles and saplings obtained.

Since the rains, the operation was extended all over the burned area, 2,240 acres, and all harmful kukat trees were girdled and all climbers cleared.

Saháranpur.—In the Saháranpur Division an area of 75 acres was marked out in the Tira block, but the coppicing was not commenced before the end of March.

Jaunsár.—In the Jaunsár Division Mr. Hearle reports that the karshu shoots in the plots coppiced in Mohna have suffered much from frost, and that coppicing is probably not advisable at such an altitude (9,000 feet) and on such steep slopes.

It is probable that the trees were too old when coppiced, or that some other special reason for failure existed, as karshu is regularly coppiced in Bashahr for kumri cultivation, and the resulting stool shoots are dense, strong, and vigorous.

The moru coppiced in 1882 failed to produce shoots, probably owing to the age of the trees.

The Kurwa coppice of bán, borass, &c., promises to succeed well, and compartment 3, containing about 3 acres, was coppiced in December last and yielded 9,470 stacked cubic feet of timber for the Chakráta cantonments.

46. *Cleanings of Pinus excelsa above deodar seedlings.*—These cleanings of *Pinus excelsa* above deodar were called thinnings in last year's report; but as the operation consists in the heading off of an inferior species likely to injure the principal one, and not of the removal of suppressed individuals of the principal species which would constitute a true thinning, the term *cleaning*, as adopted in the translation of Bagneris's *Sylviculture*, is used.

In Jaunsár about 15 acres have been cleaned at Hinari at a cost of Rs. 18.

In the Tons Division the same operation was very carefully performed by Mr Moir, as formerly the deodar plants had been too much exposed and were bent down by the snow.

There is no doubt that young deodar plants require protection, and this is best afforded by the blue pine, and any attempt to remove the latter entirely from the neighbourhood of the deodar plants is a mistake.

The lopping of the lower branches of the blue pine is frequently all that is wanted.

The areas operated on by Mr. Moir in the Lambatách forest are :—

	Acres.
Chakora block	45
Thanwar „	40
Total ...	85

The cost of this work was Rs. 55-8-0.

47. *Girdling fir trees in Deota*—Mr. Moir reports as follows regarding the girdling of fir trees in deodar forest at Deota :—

At the suggestion of Major Bailey the system of girdling was conducted on a different principle from former years, viz., instead of girdling the trees after the fellings have been completed in certain compartments, the operation was conducted in a compartment of Kanga block, where fellings will probably not take place for a few years.

Girdling operations were therefore commenced in compartment V., Kanga block, on about 200 pines and other trees, the trees having been previously marked by me or Mr Hoet-Hampden, the principle which guided the operation being only to girdle over advance growth or in the immediate neighbourhood of existing deodar trees The cost of the operation was Rs. 6-4-0. About 250 trees were also girdled in the lower portion of compartment IV., Temple block, in order to complete the work in that compartment.

As regards the operations which were formerly carried out during 1881-82 in compartments III and IV., Temple block, the trees girdled are all dead, and the advance growth has undoubtedly benefited much by the operation, but until a good seed year arrives it cannot be said that many new seedlings have yet sprung up

It is doubtless advisable to girdle all inferior trees, including oaks, which impede the growth of deodar, and this work will be started next year in the principal deodar forests of Jaunsár as well as in the Tons Division.

48 *Cleaning a patch of indigofera at Deota* —A patch of about 2 acres in extent covered with indigofera and desmodium was cleaned in May in the Temple block, at a cost of Rs. 10, in order to encourage natural reproduction, but no seed having fallen, no new seedlings were produced, though the existing ones have benefited by the operation.

49. *Treatment of bamboos.*—The rotation of bamboo fellings is kept up in the Saháranpur Division, but as none of the blocks have as yet had a 3-years' rest, it is too early to decide as to its merits.

The experiment in progress in the Ráni block will be carried out, though the area (10 acres) is too small for conclusive results to be arrived at.

50 *Experimental collection of resin and turpentine.*—Experimental collection of crude resin from *Pinus longifolia* has been commenced in the Jaunsar and Tons Divisions, and will be reported on fully next year, though it has been done on too small a scale.

If there were a steady market for resin and oil of turpentine, the large pine forests in Jaunsar, which are too far from routes for profitable export of timber, could be utilized.

Communications and buildings.

51. *Expenditure.*—The expenditure was as follows as compared with that of the previous year :—

Year.	Roads and bridges.	Buildings.	Other works.	Total.
	Rs	Rs.	Rs.	Rs.
1882-83	8,871	18,192	756	27,819
1883-84	9,098	10,289	1,817	21,204

52. *Roads and bridges.*—The repairs of existing roads cost Rs. 4,244, and the construction of 30¾ miles of new roads and paths cost Rs. 4,854.

The following statement shows the length of roads and paths in this Circle :—

	Length in miles.				Total.
	Dehra Dún	Saháranpur.	Jaunsar.	Tons	
In Dún and Saháranpur					
Cart roads, 15 feet	88	10	...	...	98
Ditto 10 ,, ...	15	28½	...	...	43½
Bridle paths, 6 ,, ...	82	1	...	...	83
Foot-paths	...	1½	...	...	1½
In Hill Divisions.					
Main road	...	...	84	41	125
Roads, 3 to 4 feet	...	...	35¾	76	111¾
Inspection paths	...	...	68	141	209
Total ...	185	40½	187¾	258	671½

DIRECTION.—The repairs to roads and paths within the school compound is charged to AVII.c, other works and cost Rs. 64.

DEHRA DÚN.—The expenditure was as follows:—

	Rs.
Repairs of existing roads, 200 miles, or Rs. 9-9-6 per mile	1,920
Construction of 21 miles of 15 feet cart road, or Rs. 72-6-0 per mile ...	1,520
Construction of 3 miles of 6 feet bridle path	50
Total ...	3,490

	Miles.
The principal new 15 feet roads constructed are Thano Kalnwala ...	4
Export roads in Nagsidh forest	11
Naugaon-Jhajra in Dholkot	2

Besides the above a sum of Rs 270 was received in the Dún Division from the District Fund for repairs of roads and spent on repairs of the Motronwala, Rishikesh, Hardwar, and Rishikesh-Lachiwala roads.

SAHÁRANPUR.—No new roads were attempted, and Rs 242 only spent on repairs. Besides this amount, however, Rs. 430 of District Funds was expended in clearing the Khara-Hardwar road and improving its worst places.

In Jaunsár the repair of existing roads cost Rs. 1,501, or Rs. 6 per mile, and the construction of 3¾ miles of new roads and paths cost Rs. 994, or Rs. 265 per mile—total Rs. 2,495.

Mr. Hearle notes that an annual grant of Rs. 20 per mile was promised by the District Committee for repairs of the Chakráta Tiuni road, which is the principal road in the Jaunsar district, except the Chakráta Military road, and leads direct to Simla, but the expenditure was not sanctioned by the Commissioner, and the whole expense for the repairs of this road still falls on the Forest Department.

In the Tons Division Rs. 585 were spent on repairs of certain roads and Rs 2,290 on construction of new roads, of which Rs. 2,126 was spent on the new Deota sledge road and Rs. 164 on certain short pathways

The Deota sledge road is a most important work, as if it proves successful—and this I have no reason to doubt—it will be the case—a very useful method of transporting timber and fuel which has been in use for centuries in the mountain forests bordering the Rhine Valley will have been introduced into the Himalayas.

The mode of construction of the road is that rejected 6 feet deodar sleepers are laid 5 feet apart along a roadway with gradients from 5° to 10°, 7° being apparently the best of all, and ballasted up with broken stones, &c., and cross sleepers at distances of 2′ to 2′ 3″ are bolted on to them. On these latter the sledges run in grooves cut 2′ 2½″ apart in the cross sleepers, and experience has shown that 20 to 25 sleepers can be easily conveyed by two men.

It is not at all essential for the construction of similar sledge roads that squared timber be used, but the rejected sleepers being handy were utilized, though round logs split in half would have answered the purpose. It was at first intended to make the road similar to those in use in the Vosges and Jura, only transverse sleepers being laid and fixed with pegs, but it was found that the pegs got loose and the sleepers shifted.

About 6,000 feet of the roadway were completed during the year, about 1,000 feet remaining. Eight timber viaducts and bridges of an aggregate length of 550 feet were also made, and a bridge 60 feet in length is being constructed. The sledge way was also constructed for a length of 3,340 feet.

A full account of this sledge road with plans will be given in next year's report.

Besides completing the Deota sledge road for transport of sleepers, it is intended to prepare three miles of sledge road from Deoban to Chakráta, which will greatly reduce the present high expenditure on transport of fuel, and an experimental piece 200 yards long is now being prepared.

It is found that moru is the best wood for the sledge runners, but Mr. Moir reports that it is difficult to find moru wood suitably curved.

Bridges.—Mr. Moir reports that the main wire ropes of the Maindrot suspension bridge nearly gave way, but the flaw was discovered in time and the ropes hauled into position and secured. Two 50 feet beams have been prepared for the Arakót bridge over the Pabar river.

The Naintwar bridge over the Tons was also under repair at the end of the year.

53. *Buildings.*—The expenditure on buildings may be thus distributed:—

	Rs.
Repairs of existing buildings	3,075
Construction of officers' rest-houses	4,938
Ditto of rangers' and foresters' houses	468
Ditto of revenue chaukis and other buildings	1,813
Total ...	10,289

The following is a list of buildings which have been constructed and maintained in this Circle:—

Description.	For use of		Office stores, &c.	Wells.	Total
	Officers	Subordinates.			
Dehra Dún.					
Permanent ...	4	5	...	1	10
Semi-permanent ...	3	16	...	...	19
Temporary ...	6	25	2	...	33
Total ...	13	46	2	1	62
Sahárunpur.					
Permanent ...	3	1*	...	4	8
Semi-permanent ...	...	2	...	...	2
Temporary ...	...	22	...	...	22
Total ...	3	25	...	4	32
Jaunsár.					
Permanent ...	6	9	3	...	18
Semi-permanent ...	2	8	4	...	14
Temporary ...	...	...	...	...	...
Total ...	8	17	7	...	32
Tons.					
Permanent ...	5	...	1	...	6
Semi-permanent ...	2	6	1	...	9
Temporary ..	...	2	4	...	6
Total ...	7	8	6	...	21
Direction.					
Permanent ...	...	...	2	...	2
Semi-permanent ...	...	1	...	...	1
Temporary ...	...	3	3	...	6
Total ...	...	4	5	...	9
GRAND TOTAL ...	31	100	20	5	156

The expenditure incurred in the several divisions is thus accounted for:—

DIRECTION.

	Rs.
Repairs to main building ...	225
Ditto to out-houses ...	139
Total ...	364

DEHRA DÚN

Repairs to existing buildings ...	962
Construction of rest-houses at Lachiwala ...	2,122
Ditto ditto at Maidan ...	1,712
Ditto of temporary rest house at Bullawala ...	315
Ditto of temporary house for students at the Forest School at Bullawala and Lachiwala ...	119
Ditto of rest-house at Thâno ...	92
Ditto of a pucka chauki at Kharkhari ...	525
Ditto of temporary chaukis ...	350
Ditto of temporary stables at Mohkampur and Kansrau ...	96
Total ..	6,293

SAHÁRANPUR

Repairs ...	180
Construction ...	779
Total ...	959

Except the completion of the Dholkhand forest rest-house, no construction of new buildings was undertaken, and Rs 180 was spent on repairs of existing buildings.

The Dholkhand forest rest-house was completed at a cost of Rs 779 during the year, bringing up its total cost to Rs. 2,490.

JAUNSAR.—The expenditure on buildings has been as follows:—

	Rs.
Repairs ...	1,281
Collecting materials for rest-house at Chakráta forest garden ...	104
New Forester's hut at Konain ...	349
Stable at Kanjátra ...	167
Chauki at Chakrata ...	58
Total ...	1,959

* Fell down during rainy season

The expenditure on repairs was heavy, chiefly owing to the bad state of Deoban forest rest-house, on the repairs of which Rs. 897 was expended.

In the Tons Division no new buildings were constructed and Rs. 708 was spent on repairs.

54 *Other works.*—Rs. 1,817 have been expended on other works, including Rs. 64 on repairs of roads in school compound and Rs. 68 repairs to compound gates, &c. In Dehra Dún Rs. 445 was for the completion of a pucka well at Parduni in the Eastern Dún, and Rs. 87 for another which has been commenced at Bullawala.

In Saháranpur two wells were constructed at Patri and at Ráni for Rs. 332 and Rs. 342 respectively.

Rs. 63 was spent on clearing old wells and constructing five temporary wells, which are very useful in the dry season, being sunk in the raos near the forest chaukis, and the sides supported by stakes

They become filled up with sand, &c., during the monsoon months.

In Jaunsár Rs. 258 was spent in constructing a trough to bring water to the Mundáli forest rest-house.

In the Tons Division Rs. 131 was charged under this head for repairs of tools, though this does not appear to be the right head for such a charge, which should have been charged to A1X. C, or to the works on which the tools were being used.

CHAPTER IV.

Yield and Working.

Departmental operations.

55. *Maintenance of departmental timber operations.*—As stated by Major Bailey in last year's report, departmental timber operations will be continued in the hill division, but until the Tehri lease, which lapses at the end of May, has been renewed, the extent of these operations and the probable profit to Government cannot be well discussed in an annual report.

It is, however, proposed to work out 50,000 metre-gauge sleepers annually from the hills, and in case the Tehri lease be renewed, the Deota forest will yield this amount for the next three years.

There has been no falling off in the demand for deodar sleepers, although the export from native states down the Jumna has been considerable, and Mr. Moir reports that the people in the Doab, and the districts of the Panjab adjoining the Jumna, do not prefer deodar *karis* to those of chir (*Pinus longifolia*), so that the export of deodar in any other form than that of sleepers is for the present impracticable. The advisability of getting a market for deodar in some other shape will not, however, be lost sight of.

The departmental fuel and timber works for the supply of the Chakráta cantonment will also be continued, and it is hoped, by economy in working charges and a slight increase in the prices charged to the Commissariat Department, that these works will no longer be carried on at a loss.

It is advisable in this Circle to retain departmental works with timber slides, sledge roads, and other improved systems of timber transport for purposes of instruction, but we should not lose sight of the fact that although contractors purchasing standing timber would not construct such works themselves, yet that they would pay for them if constructed by us, either by a fixed charge per sleeper removed, or by higher rate for standing trees, and the works might be equally instructive when carried on in this way.

The main point to be considered in undertaking departmental works is whether they will pay; and although there have been failures owing to Government having undertaken works in forests, whence the export is difficult, and the market doubtful, yet many forests of the School Circle are extremely well situated in both these respects, and there would be far less temptation to fraud in departmental works than in those undertaken by purchasers, which in the Dún Division are avoided to a certain extent by respectable contractors from fear of prosecutions.

56. *Trees felled.*—The trees felled during the year were as follows:—

	Trees.	*Cubic feet.*
Selection fellings	1,459	184,689
Thinnings	287	33,967
Total ...	1,746	218,656

as compared with 2,106 and 283,651 of 1882-83.

As in the previous year, most of the trees were felled in the hill divisions for the supply of deodar sleepers and for fuel and timber for the Chakráta cantonment, only 95 sál, 12 tún, 7 sissu, and 5 kukat having been felled in the Dún, and none in Saháranpur.

The average cubic content of the trees felled is 125 cubic feet, as compared with 135 cubic feet in the previous year.

As regards species, the trees felled may be classed as follows for the selection fellings:—

	Trees
Sál	95
Tun	13
Sissu	7
Deodar	422
Firs and pines	510
Oaks	335
Miscellaneous	67

and 216 firs and pines and 71 oaks in the thinnings.

DEHRA DÚN.—The following trees were felled for departmental use in buildings, &c:—

Sál	95
Sissu	7
Tún	12

JAUNSÁR.—The number of trees felled was as follows:—

Selection fellings 796, of which 335 were oaks, 268 firs and pines, 11 deodar, 100 chír, and 62 box
Besides these, 287 dry and fallen trees were cut up into fuel and have been classed as thinnings
The total number of trees felled in the previous year was 1,216.

TONS.—The departmental fellings comprised—

Green deodar	329
Dry ditto	92
Chír	122
Tun	1

Of the deodar trees, 30 green and one dry tree were converted into beams for the Forest School and for other departmental works, and the rest into metre-gauge sleepers.

Mr Moir reports that breakages were again considerable, but attributes this to a standing order that trees should only be felled by the saw, which method he considers practically unsuitable on steep ground, as it is much more difficult and dangerous to direct the fall of the tree than when the axe is used

During the cold weather of 1883, the axe was substituted and a much smaller percentage of breakages resulted

Of the chír (*P. longifolia*) 59 were used for repairs of the Deota slide and other departmental works, and 63 were sawn up into karis and sold to Mr. Winton.

57. *Outturn of timber and other produce.*—The outturn for 1883-84 and that for previous year as compared were as follows :—

	1882-83.		1883-84.	
	Quantity	Value	Quantity	Value
		Rs		Rs.
Timber, cubic feet	88,065	63,313	93,789	68,235
Poles and saplings (number)	250	61	157	59
Bamboos, scores	...	...	267	33
Firewood, maunds	28,257	20,435	50,749	22,264
Charcoal, ditto	1,110	1,249	873	818
Minor produce	*Nil.*	...	...	...
Total ...	...	85,058	...	91,409

Mr. Hearle states that the quantity of fuel, 28,057 maunds of which came from the Jaunsár Division, was incorrectly stated in last year's report This is probably due to the fact that, in conversion of cubic feet of fuel into maunds, 2 3 cubic feet of oak and 3·5 cubic feet of fir were considered equivalent to one maund, whilst in the present year 2 cubic feet has been taken for both oak and fir, and if this had been done last year the quantity would have been 44,017 maunds.

DEHRA DÚN —The trees felled for departmental purposes yielded 1,030 cubic feet of timber.

Two hundred and fifty-two ballis and 4 tors, containing 587 cubic feet of timber, were confiscated and also 100 maunds of charcoal

As the drift timber in the Ganges and Song rivers was all leased, it is impossible to estimate the quantity sold

The amount realized for confiscated and drift timber is Rs 2,369, of which Rs. 64 was for confiscated timber and the balance for drift.

SAHÁRANPUR —The only departmental collections are as follows .—

Timber	39	cubic feet.
Bamboos	267	scores
Firewood	900	maunds.

Fuel and timber was collected on the Ganges for a short time in the rains, but was made over at cost price to Mr. Wilson, who had leased the whole drift of the Ganges from the Dún Division.

A stack which costs Rs 5 to collect sold readily for Rs 10, which shows that the collection and sale of drift timber is very profitable

JAUNSÁR —The outturn is given below :—

Timber	491	cubic feet.
Firewood	42,849	maunds.
Charcoal	873	ditto.

Mr Hearle notes that the outturn was less than last year's, owing to the large stock in depôt, and less charcoal was made, owing to private competition.

TONS.—The outturn of the Tons Division was 94,434 cubic feet, valued at Rs 65,498, as compared with 77,894 cubic feet, valued at Rs 51,524, of the previous year, the value estimated being that of the timber in the forests.

Of this timber, 83,571 cubic feet was from 82,753 metre gauge sleepers and 194 cubic feet from 56 broad-gauge sleepers, 2,793 cubic feet was chir karis or sleepers sold to Mr. Winton, and 47 cubic feet resulted from 19½ drift sleepers

The balance, 7,729 cubic feet, was used departmentally for repairs of the timber slide and of buildings

The outturn of the deodar trees felled in the Deota forest was 63 good metre-gauge sleepers per tree, being one more than in the previous year.

58. *Accounts of timber and other produce.*—The following table shows the timber transactions of the year :—

RECEIPTS

	Timber (cubic feet).	*Firewood (maunds).*	*Charcoal (maunds).*	*Bamboos (scores).*
Balance at commencement of year ...	17,542	2,677	315	...
Received in depots	60,755	44,801	873	...
Received from the forests and sold locally ...	72,949	5,278	100	267
Ditto and used by department ...	1,023	...	...	...
Total ...	152,269	52,756	1,288	267

DISPOSALS

	Timber (cubic feet)	Firewood (maunds).	Charcoal (maunds).	Bamboos (scores).
Sold from depôts	53,856	44,348	57	...
Sold locally	72,949	5,278	100	267
Otherwise disposed of	4,067	147	3	...
Total ..	130,872	49,773	160	267
Balance at close of the year ...	21,397	2,983	1,128	..

59. *Sales to Public Departments.*—The sales to public departments were confined to the hill divisions, consisting as in former years of timber, firewood, and charcoal for Chakráta and of sleepers for State and other railways.

The following table shows the results for the last five years :—

Year.	Amount of revenue.			Cost to Forest Department.			Surplus
	Due	Received	Outstanding.	Timber expenses under Al.	Quota of other charges	Total.	
	Rs	Rs	Rs.	Rs	Rs	Rs	Rs.
1879-80	2,05,392	2,05,392	.	82,455	34,103	1,16,558	88,834
1880-81	1,11,003	1,11,003	...	79,873	8,098	87,971	23,032
1881-82	1,21,540	1,21,202	338	94,834	10,440	1,05,274	16,266
1882-83	1,07,250	1,03,080	4,170	77,488	9,477	86,965	20,285
1883-84	96,543	96,543	...	68,107	10,140	78,247	18,296
Averages ...	1,28,345	1,27,444	901	80,551	14,452	95,003	33,342

During the year 3,124 cubic feet of timber and 4,033 maunds, or 8,030 cubic feet, of fuel were supplied to the Public Works Department at Chakráta; 39,927 maunds, or 79,855 cubic feet, of fuel to the Commissariat; and 599 cubic feet of deodar to the Sappers and Miners at Roorkee and 416 cubic feet of deodar to the Municipal Committee, Dehra Dún.

Thirty-one thousand eight hundred and forty-nine metre-gauge sleepers were sold to the Rewari and Ferozepur State Railway and 4,583 to the Rajputana and Malwa Railway; 39,815 sleepers were taken to Hissar, but 7,966, or 20 per cent., were rejected by the Chief Engineer of the Rewari-Ferozepur State Railway, although only 1 in 1,000 of an exactly similar batch were rejected last year by the Rajputana-Malwa Railway.

Mr. Moir considers these sleepers quite up to the average, and that the Railway has adopted too high a standard, having even rejected 95 per cent. of the sleepers brought down by a native merchant.

The question as to whether the Railway can reject sleepers of average quality, and for which only an average price has been charged, has been referred to Government, and is still under consideration.

60. *Other sales.*—The departmental sales other than those to public departments were as follows:—

One thousand nine hundred and ninety-four chír karis containing 3,184 cubic feet were sold in the Jaunsár Division to Mr. Winton at 8 annas per kari, the profit being Rs 251-2-0, or Rs. 2 per tree; 19,045 broad-gauge sleepers from the Raiengarh forests were sold at Daghpathar to Mr. Scott, of Mussoorie, at Rs. 3 each, which was the exact cost of the sleepers to the department.

One thousand and forty-eight chír karis, 12′ × 5″ × 4″, were sawn up and sold to Mr. Winton on the banks of the Tons river, at 8 annas per kari, the cost to the department being 6 annas each.

The average outturn per tree was 25 karis, so that the net profit per tree was Rs. 3-2-0

Two hundred and fifty broad-gauge sleepers were prepared and sold to Major Jacob, Rajputana.

61. *Raiengarh sleepers.*—The following sleepers from the Raiengarh forests were floated during the year :—

Broad-gauge sleepers ...	19,982
Metre-gauge ditto ...	8,000

The metre-gauge sleepers were taken to Hissar, and the broad gauge were detained at Daghpathar, pending certain negotiations with Mr Winton, who has the contract to float the sleepers to Delhi, and it was hoped that by paying him suitable conpensation he would give up his claim to float the sleepers, which would then have been sold at Daghpathar ; but as this could not be done, the sleepers will be floated to Delhi, where they may be expected to arrive by the end of July, and then Mr. Winton's contract, which of late years has caused considerable gain to himself, and consequent loss to the department, as was shown by his offering to renew the contract at a deduction of 30 per cent. on his present charges for floating, will terminate. As the sale of the Raiengarh sleepers will be completed in the next financial year, a *resumé* of the results of the transaction with Messrs. Winton and Braidwood regarding them will be deferred till then.

62. *Transport of sleepers to the Tons river.*—The sledge road in the Deota forest has been already referred to, and its completion will result in a saving in the cost of transport of the sleepers, besides giving a practical illustration of the value of sledge roads in the Himalayas.

Of the 47,774 sleepers sawn up during the year, 29,190 were exported, and 28,584 remained in the forest at the close of the working season, being stacked near the head of the sledge road.

63. *Export of timber to England.*—Sixty-two box trees were felled in the Jumna forests in the Jaunsar Division and yielded 10 tons of boxwood, which was sent to England. The trees were cut up into logs 3′ 5″ long.

The price obtained in England was £19-10-0 per ton, giving Rs. 2,191 for all the boxwood. This is against an expenditure of Rs. 1,947, the profit to the department being only Rs. 244.

64. *Loss of weight in stacked firewood.*—Two thousand two hundred and seventy stacked cubic feet of green fir fuel were weighed in May, 1883, and found to weigh 769 maunds 39 seers.

The same fuel was weighed again in 1884 and its weight found to be 588 maunds 5 seers, whilst the cubic contents on re-stacking amounted to 2,145 stacked cubic feet ; the loss in weight was therefore about 23 per cent.

Removal of produce by purchasers

65. *Trees felled.*—The trees felled by contractors or purchasers were as follows :—

	Number.	*Cubic feet.*
Selection fellings ...	1,232	44,430
Thinnings ...	4,938	98,760
Total ...	6,170	143,190

as compared with 7,077 trees and 214,524 cubic feet felled during the previous year.

66. *Produce removed.*—The amount of produce removed by purchasers during the year, including drift and confiscated timber, firewood, and minor produce, is thus compared with the figures of the previous year :—

	1882-83		1883-84.	
	Quantity.	Value	Quantity.	Value.
		Rs		Rs
Timber (cubic feet) ...	284,883	33,206	185,282	25,102
Poles and saplings (number) ...	16,111	3,057	83,617*	11,968*
Bamboos (scores) ...	92,623	7,096	84,817	4,054
Firewood (maunds) ...	230,093	10,275	80,197	8,600
Charcoal (ditto) ...	818	136	274,861	13,470
Minor produce (represented by rupees) ...	...	11,546	643	107
Grazing dues (ditto) ...	...	22,057	...	18,555
Total ...	...	87,073	...	24,847
			...	1,06,703

* Estimated outturn under leases.

Free grants of forest produce.

67. *Trees felled.*—In the Dún Division sál 50 trees, yielding 70 scores of karis, were felled in the Tehri forests and given to the Máhant of Rishikesh for repairs of his temple.

The number of trees felled and removed by right-holders was 1,291 for Jaunsar, including 534 deodar, estimated to yield 172,340 cubic feet, and valued at Rs. 5,340, at Rs. 10 per tree, as well as 5,323 dry pieces of deodar estimated to contain 10,696 feet, which were also removed without payment.

The free grants in the Tons Division are given below, and were made to villagers in British Deogarh and in the Native States of Rajengarh, Dádi, Bashahr, and Tehri-Garhwál.

Deodar	178
Chil or kail	9,955
Chir	228
Oak	245
Rai	*Nil*
Total trees ...	10,606

410 karis and planks from fallen trees were also given away.

68. *Produce removed.*—The following statement shows the amount of produce removed as compared with the figures of the former year :—

	1882-83.		1883-84.	
	Quantity.	Value.	Quantity	Value.
		Rs.		Rs.
Timber (cubic feet)	585,208	16,611	1,285,690	6,613
Bamboos (scores)	5	2	5	2
Firewood (maunds)	1,700	106	1,700	106
Total. ...	...	16,719	...	6,721

It may be noted that the quantity of free timber given away is seven times the quantity removed by purchasers, and that in the case of every deodar tree given away, the villagers obtain a free grant, worth at least Rs. 10 on the average, and in many of the more accessible forests double that sum.

Summary of produce removed from the forests.

69. *Statements prescribed by Government.*—The statements prescribed by Government are given in appendices F., G., and H., and a general comparison of the results with those of the previous year are given here.

Appendix F.—Statement of trees felled.—The total number of trees felled during the year is 19,884 as compared with 14,294 of the year before, and is close to the number of the year 1881-82. The large increase in the number of trees is due to the fellings by villagers in the Tons Division, which have more than doubled, the figures being 4,113 for 1882-83 and 10,627 for the present year; and also to a substantial increase from 3,951 to 5,225 in the number of the trees in thinnings; the increase being mostly in the Dún, where the trees were sold to contractors. The number of cubic feet of the trees felled has also risen from 1,059,953 to 1,642,578—the figures being nearly the same as those of 1881-82.

Appendix G.—Yield in produce.—The total yield in produce for the Circle is given here; figures for the divisions being in the appendix, and timber lying in the forest to the extent of 8,000 cubic feet not being included :—

		1883-84	
		Quantity	Value.
			Rs
Timber	(cubic feet) ...	1,650,578	1,11,918
Poles	(number) ...	4,830	2,607
Saplings	(ditto) ...	10,144	1,506
Bamboos	(scores) ..	80,469	8,625
Firewood	(maunds) ...	16,27,310	35,820
Charcoal	(ditto) ...	1,576	923
Minor produce, &c.	...	...	18,555
Grazing dues...	...	...	24,847
Total ...	..	...	2,04,823

There is a large increase in the quantity of timber, due to increased free grants in the Tons, and to large exports of dead timber by lessees in the Dún and Saharanpur, to which also the increase in the quantity of firewood is due.

The quantity of timber removed by the lessees is however only estimated. There is also a falling off in the quantity of bamboos, which is principally in the Dún Division owing to the closing of the Tehri bamboo forests, but higher rates having been charged, this has not resulted in any loss of revenue from this source, which has increased by nearly Rs. 1,600. There is also an increase of Rs. 7,000 in the value of the minor produce in the Dún and Saháranpur Divisions.

Appendix B —Disposal of produce collected by Government agency.—The statement of the disposal of produce collected by Government agency is too long for the body of the report and is given in an appendix.

The value of the produce sold locally was Rs 60,732 as compared with Rs. 3,996 in the previous year, the large increase being due to the sale of Raiengarh sleepers to Mr. Scott at Rampur-Mandi.

The other figures do not call for any comment.

70. *Special circumstances affecting the School Circle.*—I have nothing to add to the remarks made by Major Bailey last year, except that the advent of the railway to Hardwar may be expected to stimulate the export of forest produce and especially of lime, and will cause a large consumption of fuel for lime-burning. The exhaustion of the private forests of chír will also favor the demand for this timber in our forests in the Tons, from which a fair revenue may be anticipated in the next few years.

Imports and exports of forest produce

71. *General.*—In last year's report it was stated that timber from Native Hill States is brought down the Jumna and its branches and exported to the plains. Deodar is only exported in the form of railway sleepers, as the people in the Doab do not distinguish it from chír, but very large quantities of chír karis are taken down the Jumna in rafts, and as the large private forests in Sakliána, a jaghir in Tehri-Garhwál, the timber in which is not included in the lease to our department, and which has yielded more than a lakh of chír karis annually for the last 4 or 5 years, becomes exhausted, the demand will be met from our chír forests and those of Tehri-Garhwál. Chír timber is not yet appreciated in Meerut and the other places supplied by the Ganges Canal, so that no chír timber at present goes down the Ganges There is a considerable export of ringal stems from the hills for rafters and also for pipe stems, and of bhojpattra bark for chattries, but no figures as to the quantities brought down annually are available. From the Dún forests, most of the timber is exported by the Ganges and Jumna rivers and the Mohan and Timli Pass roads, and consists of karis, ballis, tors, firewood, and charcoal, for which there is a certain demand at Roorkee for the Canal Foundry. Charcoal and firewood are also chiefly taken from the private forests in the Dún for consumption at Mussoorie and Landour, and the Raja of Tehri leases the forests near Mussoorie for supply of all kinds of forest produce for Rs. 5,000 per annum; these forests being said by General Ramsay not

to have been included in the lease, and they are becoming rapidly exhausted, so that the question of a permanent supply of fuel and timber for Mussoorie will soon have to be taken up seriously.

There is a large export of Bhábar grass from the Saháranpur and Dún forests, and it is quite possible that if hay could be made in the Siwalik forests, that it would sell well at Saháranpur, though the experiment has not been tried.

Lime made in the Dún is very pure and, where white lime is wanted, competes successfully with the cheaper kunkar lime, which is hydraulic. Mr. Fernandez reports that even now the lime is taken from the Dún to Cawnpore, Delhi, and Lahore, and when the new Moradabad-Saháranpur line has been completed, it will go as far as Benares, and lime and the fuel required for it will prove one of the chief staples of the Dún.

The advent of the new railway has created a large demand for firewood for brick-making, and a steady demand for sal sleepers, scantlings, and poles may now be expected. There is a considerable manufacture of sissu cart-wheels in Dehra, and haldu and kora wood is exported to Saháranpur for carving and is getting scarce in the Dun.

The question of a supply of suitable wood for tea-boxes is also creating some interest, as mango wood, which has hitherto been used, is getting scarce.

Owing to the fact that Government has decided that only Indian beer should be supplied to the troops from January next, when the supply of imported casks will cease, there will be a large demand for cask staves, which are now purchased at heavy rates, principally in Austria.

If the Himalayan oaks or any other trees could be utilized for staves, a steady demand on our hill forests would arise, and experiments will be tried to ascertain the comparative value of staves made from different species.

Stock.

72. *General.*—The statement showing the value of stock is given in appendix J. The value of the stock is Rs. 2,03,888 compared with Rs. 2,11,493 of previous year; the decrease being due principally to the sale of Ramongarh sleepers.

CHAPTER V.

Financial Results.

Receipts and expenditure.

73. The financial results of the year under receipts and expenditure compare as follows with those of the two previous years :—

Division.	Receipts.			Expenditure.			Surplus		
	1881-82	1882-83	1883-84.	1881-82.	1882-83	1883-84.	1881-82.	1882-83	1883-84.
	Rs.	Rs.	Rs.	Rs	Rs.	Rs	Rs.	Rs.	Rs.
Dehra Dún ...	64,966	53,271	64,943	31,489	44,929	54,830	+32,579	+8,342	+10,113
Saháranpur ...	38,236	32,720	36,906	15,188	20,476	25,228	+23,048	+12,244	+11,678
Jaunsár ...	44,682	32,024	38,947	51,035	41,000	42,843	−6,353	−8,976	−3,896
Tons ...	1,03,750	96,448	1,22,698	2,25,490	98,861	1,15,376	−1,21,740	−2,413	+7,322
Direction ...	175	507	8,071	63,611	58,403	48,501	−63,436	−57,896	−40,430
Total ...	2,50 911	2,14,970	2,71,565	3,86,813	2,63,669	2,86,778	−1,35,902	−48,699	−15,213

Sources of Revenue

74. The receipts were derived from the following sources :—

Sources of Revenue

Division.	Timber and other produce removed from the forests by Government agency			Timber and other produce removed from the forests by consumers and purchasers.			Confiscated drift, and waif wood			Revenue from forests not managed by Government.			Miscellaneous			Total.		
	1881-82.	1882-83	1883 84	1881-82	1882 83	1883-84	1881-82.	1882-83	1883-84.	1881 82	1882 83	1883-84	1881-82	1882 83.	1883-84	1881-82	1882 83	1883-84.
	Rs	Rs	Rs.	Rs	Rs	Rs.	Rs.	Rs	Rs	Rs	Rs.	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Dehra Dún ...	230	...	...	59,950	52,043	61,698	3,596	948	2,369	...	...	...	292	280	876	64,068	53,271	64,943
Sahéranpur ...	46	...	...	36,682	28,784	36,581	1,346	3,124	79	...	...	...	162	812	246	38,236	32,720	36 906
Jaunsar ...	37,183	27,799	35,818	2,781	3,924	2,705	33	17	.	..	...	...	4,685	284	424	44,682	32,024	38,947
Tons ...	91,492	85,346	1,77,798	5,942	3 350	2,394	150	154	154	5,521	7,011	11,815	645	387	537	1,03,750	96,448	1,29,698
Direction ...	...	..	...			...	...	...	..	...	...	...	175	507	8,071	175	507	8,071
Total ...	1,28,951	1,13,145	1 43,616	1,05,355	88,301	1,03,378	5,125	4,243	2,602	5,521	7,011	11,815	5 959	2,270	10 154	2,50,911	2,14,970	2,71,565

Expenditure under A and B

75. The following table shows the expenditure under the two main heads—A., Conservancy and Works, and B., Establishments:—

A.

Division.		Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers and purchasers.	Confiscated, drift, and waif wood.	Revenue from forests not managed by Government.	Revenue from leased forests.	Live stock, stores, tools, and plant.	Communications and buildings.	Demarcation and improvement.	Miscellaneous.	Total
		Rs	Rs	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.
Dehra ...	1881-82 ...	48	617	34	...	1,851	2,369	3 200	7,178	1,025	16,322
	1882-83 ...	9	953	158	..	1,851	1,985	7,419	8,918	3,016	24,304
	1883 84 ...	11	1,460	...	...	1,851	2,270	10,315	10,333	2,049	28,289
Saharanpur ...	1881-82 ...	145	5,086	186	...	...	810	410	2,705	984	10,326
	1882-83 ...	...	5,150	16	...	...	807	2 991	5 058	250	14,282
	1883-84 ...	...	4,607	40	...	...	1,084	1,964	6,909	186	14,790
Jaunsar ...	1881-82 ...	26,538	...	...	...	...	141	6,357	2 683	5,170	40,889
	1882-83 ...	22,804	...	...	...	...	339	5,136	2,801	503	31,583
	1883 84 ...	19,713	...	...	...	...	503	4,713	2,342	1,342	28,613
Tons ...	1881-82 ...	2,00,856	...	...	. .	6,650	413	2,391	1,576	405	2,12,289
	1882-83 ...	74,492	...	...	930	6,650	163	2,857	1,469	167	86,727
	1883-84 ...	91,193	...	...	1,128	6,650	41	3,715	1,600	240	1,04,567
Direction ...	1881-82 ...	...	...	...	...	...	5,911	12,268	1,584	2,876	22,639
	1882-83 ...	...	...	...	...	...	1,455	9,446	730	3,390	15,521
	1883-84 ...	...	...	...	...	...	2,921	495	1,874	4,132	9,422
Total .	1881-82 ...	2,27,587	5,703	220	...	8,501	9,644	24,626	15,726	10,458	3,02,465
	1882-83 ...	97,305	6,113	174	930	8,501	4,748	27,849	18,971	7,826	1,72,417
	1883 84 ...	1,10,917	6,067	40	1,128	8,501	6,819	31,202	22,058	7 949	1,85,681

B.

Division.		I Salaries.			II. Travelling allowance			III. Contingencies.			Total.		
		1881-82	1882-83	1883-84	1881-82	1882 83	1883-84	1881-82	1882 83	1883-84	1881-82.	1882-83.	1883-84
		Rs.	Rs.	Rs	Rs	Rs	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs
Dehra Dún	...	13,202	17,208	22 770	1,217	2,540	3,199	748	1,057	972	15,167	20,625	26,541
Saharanpur	...	3,418	4,168	8,301	710	1,265	1,177	735	761	959	4,863	6,194	10,437
Jaunsár	...	8,532	7,992	12,275	1,397	1,083	1,313	217	842	642	10,146	9,417	14,230
Tons	...	10 892	10,145	9,746	1,889	1,885	1,273	420	406	791	13,201	12,134	10,809
Direction	...	33,361	35,127	33,288	5,708	5,232	3,258	1,902	2,523	2,534	40,971	42,882	39,080
Total	...	69,405	74,660	84,980	10,921	11,503	10,219	4,022	5,089	5,898	84,348	91,252	1,01,097

Receipts and expenditure under the three great heads.

76. The receipts and expenditure under the three great heads—

I.—Departmental timber operations,

II.—Other revenue,

III.—Formation, protection, and improvement of forests,

were as follows:—

Divisions.		Departmental timber operations.			Other revenue.			Formation, protection, and improvement charges.	Net surplus.
		Receipts.	Charges.	Surplus.	Receipts.	Charges.	Surplus.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún.	1879-80 & 1880-81,	9,475	4,164	5,311	86,955	18,704	68,251	36,937	36,625
	1881-82 ...	230	48	182	63,838	10,484	53,394	20,927	32,579
	1882-83 ...	...	9	—9	53,271	6,408	46,863	38,512	8,342
	1883-84 ...	...	11	—11	64,944	6,303	58,641	48,516	10,124
	Total ...	9,705	4,232	5,473	2,69,008	41,859	2,27,149	1,44,902	87,600
	Average ...	1,941	846	1,095	53,802	8,372	45,430	28,993	17,532
Saháranpur	1879-80 & 1880-81,	...	5	—5	58,584	21,580	37,004	17,622	19,377
	1881-82 ...	46	145	—99	38,190	9,250	28,940	5,793	23,048
	1882-83 ...	...	...	...	32,720	9,330	23,390	11,146	12,244
	1883-84 ...	..	...	...	36,905	11,136	25,769	14,092	11,677
	Total ...	46	150	—104	1,66,399	51,296	1,15,103	48,653	66,346
	Average ...	9	30	—21	33,280	10,259	23,021	9,731	13,289
Jaunsár.	1879-80 & 1880-81,	55,661	45,133	10,528	5,279	2,358	2,921	21,146	—7,697
	1881-82 ...	37,153	31,052	6,101	7,499	5,813	1,686	14,140	—6,353
	1882-83 ...	27,799	27,178	621	4,226	1,113	3,112	12,709	—8,976
	1883-84 ...	35,818	26,316	9,502	3,129	2,262	867	14,265	—3,896
	Total ...	1,56,461	1,29,709	26,752	20,132	11,546	8,586	62,260	—26,922
	Average ...	31,292	25,942	5,350	4,026	2,309	1,717	12,452	—5,385
Tons.	1879-80 & 1880-81,	2,73,711	1,50,101	1,23,210	804	2,480	—1,676	32,585	87,949
	1881-82 ...	91,492	2,06,942	—1,15,450	12,254	1,254	11,000	17,294	—1,21,740
	1882-83 ...	85,346	79,924	5,422	11,102	1,863	9,239	17,074	—2,413
	1883-84 ...	1,07,791	95,952	11,846	14,900	2,046	12,854	17,378	7,322
	Total ...	5,57,947	5,32,919	25,028	39,064	7,643	31,421	85,331	—28,882
	Average ...	1,15,589	1,06,584	5,005	7,813	1,529	6,284	17,066	—5,777
Direction.	1879-80 & 1880-81,	...	21,062	—21,062	14	7,692	—7,678	56,344	—85,084
	1881-82 ...	...	38,142	—38,342	175	7,048	—6,873	18,221	—63,436
	1882-83 ...	...	37,247	—37,247	507	6,855	—6,348	14,301	—57,896
	1883-84 ...	...	30,286	—30,286	8,071	7,087	+984	11,128	—40,430
	Total ...	...	1,26,937	—1,26,937	8,767	28,682	—19,915	99,994	—2,46,846
	Average ...	...	25,387	—25,387	1,754	5,736	—3,983	19,999	—49,369
The Circle.	1879-80 & 1880-81,	3,38,447	2,20,465	1,17,982	1,51,637	52,814	98,823	1,65,635	51,170
	1881-82 ...	1,28,951	2,76,559	—1,47,608	1,21,960	33,809	88,151	76,445	—1,35,902
	1882-83 ...	1,13,145	1,44,358	—31,213	1,01,825	25,569	76,256	93,742	—48,699
	1883-84 ...	1,48,616	1,52,565	—3,949	1,27,549	28,834	99,115	1,05,379	—15,213
	Total ...	7,24,159	7,93,947	—69,788	5,03,371	1,41,026	3,62,345	4,41,201	—1,48,644
	Average ...	1,44,832	1,58,789	—13,957	1,00,674	28,205	72,469	88,240	—29,728

The aggregate receipts were Rs. 2,71,565 as compared with Rs. 2,14,970 in 1882-83 and Rs. 2,50,911 in 1881-82, and the aggregate net deficit was Rs. 15,213 as compared with a deficit of Rs. 48,699 in 1882-83 and a deficit of Rs. 1,35,902 in 1881-82.

These deficits are due to the delay in selling the Raiengarh sleepers and to the high rates paid for floating sleepers to Mr. Winton; but in future the School Circle will be self-supporting.

Main facts relating to each division

77. In the following table are collected the main facts relating to the several forest divisions, from which it may be noted that the yield of timber and rate of revenue as well as the expenditure per acre are increasing in all the divisions; that the ratio of expenditure to revenue is steady in the Dún and has increased in Saháranpur, but has diminished in the hill divisions and for the Circle. These rates are now given in annas instead of rupees, and it should be noted that the expenditure per acre in the Tons Division last year was Rs. 2 and not Rs. 3.

Division.		Area in acres.	Yield of timber in cubic feet.	Kind of timber.	Yield of timber per acre in cubic feet.	Total receipts.	Receipts per acre.	Total expenditure.	Expenditure per acre.	Total surplus or deficit.	Ratio expenditure to receipts.	Surplus per acre.
						Rs.	As.	Rs	As	Rs.		As.
Dehra Dún	1882-83	1,77,724	1,54,713	Sal, Sain, Tún, Sissu, Chír, and Miscellaneous	0·87	53,971	4 8	44,929	4·0	8,342	·84	8
	1883-84		2,14,917		1·2	64,943	5 8	54,830	4 90	10,113	·84	·91
Saháranpur,	1882-83...	1,90,380	7,572	Sal, Sain, Jámman, and Miscellaneous.	·04	32,720	2 7	20,476	1·7	12,244	·63	1·0
	1883-84...	1,88,640...	15,888		·08	36,906	3·3	25 228	2·14	11,678	68	1·0
Jaunsár ...	1882-83	79,291	1,52,448	Deodar, fir, oak &c.	1·92	39,024	6 4	41,000	8 3	—1,976	1 26	...
	1883-84		1,90,272		2·4	38,947	7 9	42,843	8·7	—3,896	1·10	...
Tons ...	1882-83	49,516	6,43 423	Deodar, chír, oak, &c.	12·99	96,448	31 1	98,861	31 84	—2,413	1·03	...
	1883-84		12,32,501		24·9	1,22,698	39 6	1,15,376	37·3	7,322	·94	2 4
Direction ...	1882-83...	...	...	..	...	507	...	58 403	...	—57,896	115·1	...
	1883-84...	...	...	...	...	8,071	...	48 501	...	—40,430	6 06	...
Total ...	1882-83	4,96,911	9,58,156	...	1·93	2,14,970	6 9	2,63,669	8·4	48,699	1 23	...
	1883-84 ..	4,95,171	16,50,578	...	3 3	2,71,565	8·6	2,86,778	9 3	15,213	1 05	..

Principal causes of variation in revenue and expenditure.

78. *Revenue. General.*—The revenue exceeds that of 1882-83 by Rs. 56,595; that of 1881-82 by Rs. 20,654. This increase is shared in by all the divisions, being—

Rs. 7,564 in Direction Division.
" 11,672 in the Dún ditto.
" 4,186 in Saháranpur ditto.
" 6,923 in Jaunsár ditto.
" 26,250 in the Tons ditto.

Rs. 56,595

Direction.—The revenue in the Direction Division is Rs. 8,071, exceeding that of previous year by Rs. 7,564; and Rs. 8,000 is due to a refund by the Executive Engineer, Meerut Division, on account of building-material collected for the proposed students' quarters at the Forest School which he has taken over.

Dehra Dún.—In Dehra Dún we have an increase of Rs. 2,500 under firewood and charcoal owing to increased consumption of fuel for lime-burning :—

Rs. 1,140 under drift timber;
" 1,588 grazing.
" 5,680 minor produce;

principally due to increased sale of limestone and enhanced prices obtained for leases.

Saháranpur.—In Saháranpur there is an increase of—

Rs. 2,678 under timber;
" 2,244 under firewood and charcoal;
" 1,032 under bamboos;
" 2,331 under minor produce;

but there is a falling off of Rs. 3,046 under confiscated and drift wood, due to the transfer of the control of the Ganges drift to the Dehra Dún Division.

Jaunsár.—In Jaunsár there is an increase of—

Rs. 1,853 under timber by Government agency, and of
" 6,165 under firewood and charcoal by Government agency;

there being a falling off of Rs. 938 in sales of timber to purchasers and revenue under other heads being only trifling.

Mr. Hearle does not explain the reason for the decrease under sales of timber to purchasers, and every attempt will be made to stimulate these sales in future; but it should be remembered that the Raja of Tehri, with the sanction of Government, exercises the right of supplying Mussoorie with timber and other forest produce,

which, according to the wording of the lease, he has really leased to Government, and also that the Jaunsaris get all their timber and fuel, &c, free

Tons.— In the Tons Division we have, owing to increased sale of railway sleepers, an increase of Rs. 22,452 under I a.

There is also an increase of Rs 4,804 under IV. a, due to the increased timber export on the Jumna river.

On the other hand, there is a decrease of Rs. 1,662 in sales of timber to purchasers which is not satisfactory

The revenue under other heads is only trifling.

EXPENDITURE A.

Expenditure A —General.—The expenditure under A. has exceeded that of 1882-83 by Rs. 13,264, which is accounted for in the different divisions as follows .—

				Rs	Rs
Direction	...	...	...	...	6,099
Dehra Dun	...	...	...	3,968	.
Saháranpur	...	...	..	598	.
Jaunsár	...	...	...	.	2 970
Tons	...	...	...	17,840	.
		Total		22,333	9 069

Direction—The decrease in the Direction charges was Rs 8,951 for buildings, whilst there was an increase of Rs 1 466 for stores, tools and plant, and Rs 1,144 for expenditure on the new municipal garden acquired during the year, including compensation of Rs. 523 to the past lessee for extinction of his rights in the ground.

Dehra Dún.—The increased expenditure in the Dún is due to buildings, Rs 2,060 and some other smaller items, including Rs 500 for temporary establishments Rs 500 for wells, Rs 600 for demarcation, Rs 1,200 for plantations and improvement cuttings

On the other hand, there was an excess of Rs. 1,122 in last year's figures on account of the refund to Nathé Khan, the fraudulent lessee of the Timli forest.

Saháranpur—In Saháranpur the figures do not call for any remarks.

Jaunsár.—In Jaunsar the expenditure on departmental timber was diminished by Rs 3,091, which accounts for most of the savings

Tons—In the Tons there is an increase of Rs 16,761 for the sleeper works, being principally due to floating charges for the broad-gauge Raiengarh sleepers The differences in expenditure in the other heads for the two years are only trifling.

EXPENDITURE.

B.—ESTABLISHMENTS.

Expenditure B.—General.—The expenditure under B. has increased by Rs 9,845. The increases are—

						Rs
Dehra Dun	...	...	...		...	5,915
Saharanpur	...	...	...	...		4,243
Jaunsár	...	...	...	.	...	4,814
				Total	.	14,972

The savings are—

Direction	...	...	...	...	...	3 803
Tons ...	...	...	..	..	.	1,325
				Total	...	5,128

The increased charges in the Dún are principally due to the employment of the working-plans branch in the Dun and to increased pay of officers, which is also the cause of the increase in the Saháranpur and Jaunsar Divisions.

The decrease in the Direction charges are mainly due to non-employment of sanctioned permanent and temporary conservancy establishment and to savings in Conservator's pay, owing to Major Bailey's departure

The decrease in the Tons is due to Mr. Hobart-Hampden having taken Mr. Moir's place for a portion of the year.

79. *Deficit.*—The deficit was Rs. 15,213 as compared with Rs 48,699 last year, and would have been converted into a surplus of Rs 4,287 had Mr. Scott, of Mussoorie, paid for the broad-gauge sleepers sold to him, as he had undertaken to do during the financial year.

It is confidently anticipated that, independently of the charges for the Forest School, which will henceforth be met by a grant of Rs. 30,000 by the Imperial Government, the forests of the School Circle will show a fair surplus, and that the steady increase of revenue shown this year in all the divisions will be continued in future years; whilst our experience in working the forests will enable us materially to reduce the expenditure, and especially now that the floating charges for sleepers have been reduced to a reasonable figure.

The expenditure under B. must, however, be increased, as the present subordinate establishments are insufficiently paid.

Outstandings and liabilities.

80. The outstandings and liabilities on account of contractors and disbursers are shown for each division in Form 55.

At the commencement of the year the outstandings were Rs. 16,001 and at the close of the year to Rs. 14,383, the liabilities being nil. The amount outstanding is principally due to advances for works.

Outstandings of revenue.

81. The outstandings of revenue at the close of the year amounted to Rs 25,133 and comprises Rs. 4,411 in Dehra Dún :—

Rs. 1,134 in Saharanpur,
Rs. 88 in Jaunsár, and
Rs. 19,500 in the Tons.

The large outstanding in the Tons Division is the amount of a cheque presented by Mr. Scott in payment for broad-gauge sleepers, payment of which was refused by the Agra Bank.

CHAPTER VI.

General Remarks.

Connection with Civil Officers.

82. The system under which the Forest Divisional Officer is in some respects subordinate to the Collector has been continued in the Saháranpur Division during the year and has worked smoothly, and it certainly tends towards the better administration of the forests that the Divisional Officer should receive support and countenance from the Chief Magistrate of the District.

Forest legislation.

83. A notification under No. 4 of the forest rules, published in Notification No 303 of the 28th February, 1880, was published in the Gazette by the Conservator.

The rules for shooting in reserved forests were modified, and protection is now only afforded to male jerau from 1st May to 1st October, and all other male deer can be shot at any season, except spotted or hog-deer with horns in velvet, and fawns. Females, except those of gural and serau, are protected at all seasons.

Peacocks in good plumage may now be shot throughout the year, but the close season for other game birds is as before from 1st April to 31st August.

The forests protected from fire in the different divisions are closed to shooting and hunting between the following dates:—

Dehra Dún	1st January to 15th July,
Sahárnpur	15th December to 15th July,
Jaunsár / Tons	15th October to 15th July,

except with written permission of officer in charge of the Jaunsár or Tons Division.

In the case of the Jaunsar Division, special permission has been given by the Divisional Officer to all officers of the regiment stationed there, to shoot in the closed reserves, and the Colonel commanding the regiment can give any soldier written permission to shoot: but the dates of all permits, with name of holder, is kept in a register in the Orderly Room, so that in case of damage by fire or otherwise, the offender may be traced.

The shooting rules for the Circle have also been modified, so that in case of a fall of rain diminishing the risk of fire, the closed forests can be opened for shooting by the Conservator, during the season for which the forests are closed.

He may also authorise the destruction of any dangerous animal, such as a tiger or wild elephant, in a fire-protected forest during the closed period.

A draft notification to regulate the timber traffic on the Jumna river, was drawn up by Major Bailey and submitted for the approval of Government, but its publication was not sanctioned before the 31st of March.

The following statement shows the timber exported down the Jumna during the year:—

Timber removed by Government agency.	*Timber from Government forests, removed by purchasers.*		*Timber from private forests.*		*Total*	
Number of pieces	Number of pieces.	Amount of rafting dues	Number of pieces.	Rafting dues	Number of pieces.	Rafting dues.
		Rs		Rs		Rs
63,373	55,053	2,084	3,85,621	9,730	5,04,047	11,814

The regulation of timber traffic on the Ganges river is still under consideration.

Timber marks.

84. The question of introducing a uniform system of timber marks into all divisions is still pending.

Wood for Nordlinger's Sections

85. The collection of 50 pieces of the better known Indian woods, from which thin sections will be prepared by Professor Nordlinger, of the Hohenheim Forest School, has been completed and will shortly be despatched.

Supply of seed.

86. Three hundred and sixty pounds of seeds of different species were despatched to various places from the Dehra Dún and Jaunsár Divisions. The greater portion went to the Agent, Governor-General, Beluchistan, and to the Superintendent, Botanical Gardens, Sahá ranpur. Seeds were also sent to Hong-Kong, Ajmere, Hydrabad, Melbourne, and to Mr. Brandis at Bonn in Germany. A large indent for seeds was received from the Superintendent, Botanical Gardens, Singapur, and the seeds are being collected and despatched from this and other forest circles in India.

District forests

87 Some of the trees growing on the district land south-east of the Lister Grant have been sold to lime-burners, as it has been considered better to sell off the inferior wood gradually in this way and not to lease it, as otherwise, if fuel were only available at a distance, the leasing of the Song river bed for lime-burning would not produce as much as it does at present.

Private forests in the Dun

88. Mr Ross, the Settlement Officer, requested me to estimate the value of private forests in Dehra Dún, and some valuation surveys were made by Mr Clifford in the sál forest of Lysterour in the eastern Dún, belonging to Colonel Lyster, with the following results for an average sample of the forest —

Number of poles averaging 45 feet in height per acre.

Girth.		
6" to 1' 6"	1' 6" to 2' 6".	Exceeding 2' 6"
160	100	40

which at the present market value of such poles are worth Rs 130-4-0 per acre, or if we consider this forest as better than the average, we may calculate the value of the standing crop in an ordinary private sál forest in level ground at Rs 120 per acre, or at Rs 100 per acre in ravines.

Many of the beds of the dry raos are the property of the zamindars, and are leased annually at Rs. 250 per mile for lime-burning.

Ajmere forests

89. It had been intended that Dr Warth should visit Ajmere during the cold season and inspect and extend the meteorological experiments which are being conducted there, but this had to be abandoned owing to his suspension.

Hill States of the Panjab

90 The question whether Government shall lease the Taroch forest is still undecided, and was not to be taken up till 1887, when it was stated in last year's report that the Rana would come of age We now hear from the Deputy Commissioner of Simla that he came of age in April, 1883.

In the meantime, the Deputy Commissioner of Simla refers all the Raja's applications to sell deodár trees to Mr Moir, and the sale is restricted to 1,000 trees per annum, although the Raja is very anxious to exceed this number and to realize the value of his standing timber as quickly as possible.

Visit by the Inspector-General of Forests.

91. Dr Schlich visited the Tons and Jaunsár Divisions in September, and went on a two-months' tour through the deodár forests of Jaunsár and Tehri-Garhwál with Mr Moir.

He also visited the Saháranpur and Dun forests in March last

Memorandum on reserved forests in Jaunsár Báwar

A memorandum on the reserved forests in Jaunsár Báwar has been written by Major Bailey and published during the year, and it gives a very clear and accurate account of the forest rights in Jaunsár.

W R FISHER,
Offg Conser of Forests, School Circle, N-W P

ANNUAL STATEMENTS
AND
APPENDICES.

ANNUAL FORM No. 49—(PRESCRIBED)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Area of reserved and leased forests, 1883-84.

Division or range	Civil district or territory	Name of forest	*Area on 1st April, 1883*		*Added during the year*	*Excluded or transferred to other heads*	*Area on 1st March, 1884*		No and date of Notification of addition or transfer.	Remarks
			Acres	Equivalent in square miles.	Acres.	Acres.	Acres	Equivalent in square miles.		
Dehra Dún Division										
Western range ..	Dehra Dún ...	Ambari	4,203	7	...	...	4 203	7		
		Chandpur	2,251	3	...	...	2,251	3		
		Dholkot	4 826	8	...	...	4,826	8		
		Jumna ...	9 243	14	...	...	9,243	14		
		Timli	19,704	31	...	...	19,704	31		
		Sherpur	13,922	22	...	...	13,922	22		
		Chandrabani . ..	7,289	11	...	...	7,289	11		
Central range ..	Ditto ..	Ramgarh	10,482	17	...	...	10 482	17		
		Bhawála	14,965	23	...	...	14 965	23		
		Nágsidh ...	16,517	26	...	...	16,517	26		
Eastern range ...	Ditto ...	Kausrau	20,936	33	...	...	20,936	33		
		Motichúr	22,428	35	...	...	22,428	35		
Eastern Dun range,	Ditto .	Malkot	5,790	9	...	...	5,790	9		
		Thano	6,607	10	...	...	6,607	10		
		Tirsal ...	18,066	28	...	...	18,066	28		
		Saukot	495	1	...	...	495	1		
		Total, Dehra Dún Division ...	177,724	278	...	...	177,724	278		

Sahárunpur Division	Western range ...	Sahárunpur ...	...	81,876	128	...	...	81,876	128	
	Central range ...	Ditto ...	...	74,961	117	...	—	74,961	117	
	Eastern range ...	Ditto ...	...	33,543	52	...	1,740	31,803	50	
			Total Sahárunpur Division ...	190,380	297	...	1,740	188,640	295	
Jaunsár Division.	Southern ...	Dehra Dún ...	Hálsi	4,568	7	...	...	4,568	7	
			Strips on Jumna and Tons ...	422	1	...	...	422	1	
			Bairát	279	...	...	...	279	...	
			Amláwa	402	1	...	...	402	1	
		Tihri Garhwál...	Rawai	4,429	7	...	...	4,429	7	
			Jaunpur	774	1	...	...	774	1	
	Deoban ...	Dehra Dún ...	Lokandi	6,975	11	...	...	6,975	11	
			Deoban	6,545	10	...	...	6,545	10	
	Báwar ...	Dehra Dún ...	Ekra	5,313	8	...	...	5,313	8	
			Karámba	11,842	19	...	...	11,842	19	
			Konain	4,654	7	...	...	4,654	7	
			Biknár	6,450	10	...	...	6,450	10	
			Dharagádh	13,540	21	...	...	13,540	21	
			Dhármigádh	10,013	16	...	...	10,013	16	
			Bástil	3,085	5	...	...	3,085	5	
			Total, Jaunsar Division ...	79,291	124	...	...	79,291	124	

ANNUAL FORM No. 49—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Area of reserved and leased forests, 1883-84—(concluded).

Division or range.	Civil district or territory.	Name of forest	*Area on 1st April*, 1883.		*Added during the year.*	*Excluded or transferred to other heads*	*Area on 1st March*, 1884.		Number and date of notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Tons Division. Deogár range,	Dehra Dún ...	Deogár	11,244	17	...	...	11,244	17		
	Jaghira ...	Raingárh	4 552	7	...	...	4,552	7		
		Dádi, including Ori	1 382	2	...	...	1,382	2		
Deota range ...	Dehra Dún ...	Khunigádh	11,974	19	...	...	11,974	19		
	Tihri Garhwál ..	Deota	4,937	8	...	...	4,937	8		
		Bamsu	2,323	4	...	...	2,323	4		
		Surás	1,014	2	...	...	1,014	2		
		Bank of Tons	9	...	...	...	9	..		
		Datmir	2,560	4	...	...	2,560	4		
		Báshla	1,190	2	...	...	1,190	2		
		Binksár	50	...	...	...	50	...		
Lambatách ...	Ditto ...	Lambatách	2,883	4	...	...	2,883	4		
		Kotigádh	3,968	6	...	...	3,968	6		
Basháhr ...	Basháhr .	Basháhr	1,430	2	...	...	1,430	2		
		Total Tons Division ...	49,516	77	...	...	49 516	77		
		GRAND TOTAL FOR THE CIRCLE,	496,911	776	...	1,740	495,171	774		

ANNUAL FORM No. 50—(PRESCRIBED).

FOREST DEPARTMENT, SCHOOL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Area of Plantations, 1883-84.

Division.	Name of Plantation.	On 1st April, 1883.		Added during 1883-84.		On 31st March, 1883.		Remarks.
		Area.	Cost.	Area	Cost.	Total area.	Total. cost.	
		Acres	Rs	Acres.	Rs.	Acres.	Rs	
Dehra Dún	Phandowála (Sál)	7½	395	...	137	7½	532	
	Various other plantations imperfectly stocked, incomplete, &c	...	491	...	1,270	...	1,761	
	Total	7½	886	...	1 407	7½	2,293	
Saháranpur	Shamursur (Khair and Sissu)	6	212	...	57	6	329	
	Ferozpur (chiefly Sissu)	76½	619	4	144	80½	763	
	Rasulpur (Khair and Sissu)	5	17	...	5	5	22	
	Kalu-bahid (bamboos, Mahua, Khair)	8	246	5	346	13	592	
	Ganjarban (Sál)	6½	122	...	53	6½	175	
	Bam (Sal)	7	113	...	63	7	176	
	Sendhli	...	...	8	225	8	225	
	Figures erroneously charged	...	..	..	8	...	8	For collection of seed for Ajmír
	Total	109	1,389	17	901	126	2,290	
Jaunsár	Kathian (deodár)	229	2,952	...	1	229	2,953	
	Konain (ditto)	112	2,426	10	17	122	2,443	
	Kunasar (deodár, blue pine)	139	1,656	...	...	139	1 656	
	Bodyar (deodár, spruce)	373	4,170	...	...	373	4,170	
	Korwa (oak)	15	163	...	2	15	165	
	Mohna (deodár, spruce, blue pine, kharsu, chestnut)	165	2.885	10	357	175	3.242	
	Matkangra (maru)	51	699	...	...	51	699	
	Thona (spruce)	4	732	...	...	4	732	
	Lurli Cantonment block (oak, deodár, chír, blue pine)	38	623	16	192	54	815	
	Sai Toli Cantonment block (ban oak, deodár)	9	132	6	70	15	202	
	Expenditure on Kanjatra nursery and figures erroneously charged.	...	14	...	*27	...	41	* Charges for Forest Garden at Chakráta, Rs. 25
	Total	1,135	16,452	42	666	1,177	17,118	
Tons	*Deota forest.*							
	Sowings / Plantings	36	513	7	107	43	620	
	Lambatách forest.							
	Plantings	135	836	...	105	135	941	
	Morach forest.							
	Sowings	8	131	5	43	13	174	
	Dátmir and Saura forests.							
	Boxwood nurseries	...	20	...	9	...	29	† Total expenditure under A VIII D.
	Total	179	1,500	12	264	191	1,764	
	GRAND TOTAL	1,430½	20,227	71	†3,238	1,501½	23,465	

ANNUAL FORM No. 51—(Suggested).

Forest Department, School Circle, North-Western Provinces and Oudh.

Area of forest tracts protected from fire during the dry season of 1884 (*to accompany report for* 1883-84).

Division.	Forest tracts.	Up to 15th June, 1883		During dry season of 1884.					Year in which protection commenced.	Remarks.
		Area actually protected.	Total cost.	Area attempted to be protected.	Failures.	Actually protected	Amount expended.	Total cost up to 15th June, 1884.		
		Acres	Rs.	Acres.	Acres.	Acres	Rs	Rs		
Dehra Dún	Bélawála	14 503	12,479	14,503	...	14,503	911	13,390	1872	
	Rámgarh	6,274	2,396	6,332	...	6,332	869	3,265	1878	
	Tháno	5,174	4,023	5 434	77	5,357	866	4,949	1877	
	Chandrabani	3,840	2,412	4,902	...	4,902	315	2,727	1878	
	Kansrau { Nichli Song	1,600	2,981	1,600	72	1,528	435	3,815	1878	
	Kansrau { Bahera	8,388		8,510	...	8,510	379		1881	
	Nágsidh	...	...	2 560	...	2,560	580	580	1883	
	Motichur	...	...	3,929	...	3,929	349	349	1883	
	Dholkot	.	...	..	...	...	9	9	...	
	Total	39,779	24,351	47,770	149	47 621	4,6[illegible]3	29,024	...	
Sahárunpur	Lakarkot, Gangarban, and Rasúlpur	8,489	4,071	8 489	...	8 489	893	4,964	187[illegible]	
	Dholkhand Malowála, portion of Bám and Andheri	10 080	1,457	10,080	40	10,040	336	1,793	1880	
	Chilawála, Gaj, portions of Andheri, Bam, and Betban	15,682	876	15,907	.	15,907	484	1,360	1882	
	Kalushalnd	985	928	1,000	460	520	264	1,192	1879	
	Patri plantation	1,000	547	1,000	62	938	712	1,259	1880	
	Dhaula	600	690	600	30	570	166	856	1879	
	Sendhli	470	217	500	...	500	197	414	1883	
	Bánlawála	500	84	500	...	500	107	191	1883	
	Lálwala, Mohand, and Sukh	...	...	704	..	704	336	336	1884	
	Tira	...	...	375	...	375	96	96	1884	
	Total	37,606	8,870	39, 55	612	38,543	3,591	12,461		

		Southern range.									
Jaunsár ...		Kálsi, Bairát, Amláwa	2,450	317	2,500	36	2,464	9	326	1872
		Cantonment blocks, Forest Garden	619	137	630	...	630	10	147	1881
		Rawai and Jaunpur	2,680	124	2,880	14	2,866	13	137	1872
		Deoban range.								
		Lokandi	5,113	563	5,132	...	5,132	47	610	1869
		Deoban	5,715	474	5,775	50	5,725	72	546	1872
		Ekra	2,670	596	2,670	...	2,670	86	682	1872
		Konain	3,780		3,780	15	3,765			
		Karumba	3,878		3,878	...	3,878			
		Báwar range.								
		Riknar	4,600	1,250	4,600	...	4,600	144	1,394	1872
		Dhárágádh	4,000		4,000	480	3,520			
		Dharmigádh	1,200		1,200	...	1,200			
		Bástil	1,269		1,269	...	1,269			
		Total	37,974	3,461	38,314	595	37,719	381	3,842	
Tons ...		Dátmir	2,560	160	2,560	...	2,560	13	173	1872
		Khunigádh, Molta, and Chatra	1,657	1,042	3,257	1,560	1,697	252	1,294	...
		Hanol	1,120	...	1,120	...	1,120	33	33	1879
		Deogar, including Raiengarh and Dadi	7,909	917	7,916	15	7,901	89	1,006	1872-1879
		Deota, including Bamsu, Suras, Bashla, Lambatách, and Kotigádh.	15,983	1,979	16,365	15	16,350	364	2,343	1872
		Binkaar	50	4	50	...	50	4	8	1879
		Bashahr	1,418	36	1,418	...	1,418	37	73	1881
		Total	31,597	4,138	32,686	1,590	31,096	792	4,930	...
		GRAND TOTAL	147,156	40,820	157,925	2,946	154,979	9,437	50,257	...

Charged in previous years	40,820
" 1883-84	5,436
" 1884-85	4,001
	50,257

Note.—This form is for the dry season, and not for the financial year, and therefore the date up to which expenditure is included must be filled in to suit the circumstances of each circle.

ANNUAL FORM No. 52—(PRESCRIBED).

FOREST DEPARTMENT, SCHOOL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

Prosecutions for breaches of Forest rules during 1883-84.

Forest division and civil district.	Cases pending from 1882-83.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Dehra Dún district.														
Dehra Dún division	2	1	3	...	1	5	7	2	3	3	6	5	9	2
Jaunsár ditto	...	1	1	...	...	2	2	2	4	...	...	2	4	...
Tons ditto	1	1	2	...	...	3	4	1	1	3	7	4	8	...
Sahárunpur district.														
Sahárunpur division	...	...	3	...	...	3	3	1	1	2	7	3	8	...
Native States.														
Jaunsár	...	1	...	...	...	1	1	1	10	...	...	1	10	...
Total for the Circle ...	3	4	9	...	1	14	17	7	19	8	20	15	39	2
Cases compounded under section 67 of the Forest Act.														
Dehra Dún division	...	...	23	...	...	23	23	23	36	...	...	23	36	...
Sahárunpur ditto	...	1	18	...	...	19	19	19	42	...	...	19	42	...
Jaunsár ditto	...	4	5	5	...	14	14	14	17	...	...	14	17	...
Tons ditto	...	3	8	2	9	22	22	12	28	10	75	22	103	...
Total for the Circle ...	...	8	54	7	9	78	78	68	123	10	75	78	198	...

ANNUAL FORM No. 53—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Summary of Revenue of the different divisions during 1883-84.

Budget Heads—Receipts.	Direction.	Dehra Dún Division.	Saháranpur Division.	Jaunsár Division.	Total Division	Total.
A.—CONSERVANCY AND WORKS.	Rs. a p.	Rs. a. p	Rs. a p.	Rs. a. p.	Rs. a p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency —						
(a) Timber	...	...	...	9,041 4 6	1,07,798 1 0	1,16,839 5 6
(b) Firewood and charcoal	...	...	...	26,776 6 4	...	26,776 6 4
(c) Bamboos	...	...	..	...	...	...
(d) Sandal wood	...	..	...	...	..	...
(e) Grass and other minor produce	...	...	...	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers—						
(a) Timber	...	32,168 2 4	3,992 15 2	565 0 9	1,581 6 6	38,307 8 9
(b) Firewood and charcoal	...	5,243 7 0	7,826 10 2	316 11 0	...	13,386 12 2
(c) Bamboos	...	4,843 5 6	3,593 2 11	155 11 3	...	8,592 3 8
(d) Grazing and fodder grass	...	8,929 2 9	13,637 15 6	1,467 9 6	812 15 0	24,847 10 9
(e) Other minor produce	..	10,514 2 9	7,530 7 6	199 12 0	...	18,244 6 3
III.—Confiscated, drift, and waif wood	..	2,369 9 0	78 14 0	0 2 9	154 4 0	2,602 4 9
IV.—Revenue from forests not managed by Government —						
(a) Duty on foreign timber and other forest produce	...	...	...	...	11,814 9 10	11,814 9 10
(b) Revenue from shared and private forests	...	..	...	...	...	...
V.—Miscellaneous —						
(a) Fines and forfeitures	...	...	173 8 2	243 6 9	143 2 6	560 0 8
(b) Refunds	8,001 4 0	4 13 7	...	...	1 2 0	8,007 3 7
(c) Other sources	69 10 0	871 9 0	72 1 6	180 12 0	392 5 2	1,586 5 8
Total Receipts	8,070 14 0	64,943 10 11	36,905 10 11	38,946 12 1	1,22,697 14 0	2,71,564 13 11

ANNUAL FORM No. 53—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Summary of Expenditure of the different divisions, 1883-84.

Budget heads	Direction	Debra Dún Division.	Sahárunpur Division.	Jaunsár Division	Tons Division	Total
A.—CONSERVANCY AND WORKS	Rs. a. p	Rs. a p	Rs a p.	Rs. a. p.	Rs. a. p	Rs. a. p
I—Timber and other produce removed from the forests by Government agency —						
(a) Timber	...	11 0 6	...	2 739 8 3	91,192 10 2	93 943 2 11
(b) Firewood and charcoal	...	...	...	16,973 6 2	...	16,973 6 2
(c) Bamoons	...	...	...	...	...	...
(d) Sandal wood	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...
II—Timber and other produce removed from the forests by consumers or purchasers,	...	1,459 13 6	4,607 3 2	...	...	6,067 0 8
III—Confiscated, dr ft, and waif wood	...	0 5 0	40 3 0	...	...	40 8 0
IV—Revenue from forests not managed by Government—						
(a) Duty on foreign timber and other forest produce	...	...	...	...	1,127 12 10	1,127 12 10
(b) Revenue from shared and private forests	...	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by Government.	...	1,851 0 0	...	...	6,650 0 0	8,501 0 0
VI—Live Stock, Stores, Tools, and Plant —						
(a) Purchase of Cattle	...	...	...	...	...	...
(b) Feed and keep of Cattle	665 7 1	1,511 9 8	660 5 5	...	...	2,837 6 2
(c) Stores, Tools, and Plant	2,255 10 1	758 14 8	423 2 9	502 13 9	41 6 0	3,981 15 3
VII—Communications and Buildings —						
(a) Roads and Bridges	...	3,489 15 3	241 13 1	2,495 6 2	2,870 7 9	9,097 10 1
(b) Buildings	364 0 9	6,292 11 6	958 12 5	1,959 0 11	713 15 9	10,288 9 4
(c) Other works	131 7 4	582 9 2	763 13 9	258 5 10	131 1 10	1,817 5 11
VIII—Demarcation, improvement and extension of forests —						
(a) Demarcation	...	1,270 10 11	2,369 7 3	76 0 8	31 [illegible]6 3	3,742 9 1
(b) Compensation for Land and Rights	523 0 0	273 11 4	...	5 0 0	50 0 0	851 11 4
(c) Surveys and Working Plans	...	1,312 11 0	...	664 4 10	...	1,976 15 10
(d) Plantations	...	1,406 7 7	901 2 3	666 1 6	264 6 6	3,238 1 10
(e) Protection from Fire	...	4,151 0 7	3,439 5 6	371 10 9	892 9 3	8,854 10 1
(f) Other works	1,350 10 0	1,917 14 4	199 4 6	559 5 4	361 4 0	4,388 6 2
IX—Miscellaneous —						
(a) Refunds	...	...	...	...	...	...
(b) Law charges	...	374 9 0	48 8 0	...	...	423 1 0
(c) Other charges	4,131 11 5	1,674 3 4	137 5 9	1,741 10 5	239 14 11	7,524 13 10
TOTAL A—CONSERVANCY AND WORKS	9,421 14 8	28,289 3 4	14,790 6 10	28,612 10 7	1,04,566 15 3	1,85,681 2 8

CALCUTTA
The 10th June, 1884.

G J VAN SOMFREN, MAJOR,
Assistant Comptroller-General (Forest).

ANNUAL FORM No 53—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Summary of expenditure of the different Divisions, 1883-84—(concluded).

Budget heads.	Direction	Dehra Dún Division.	Saháranpur Division.	Jaunsar Division.	Tons Division.	Total.
	Rs a p.	Rs. a. p	Rs a. p.	Rs a. p.	Rs a p	Rs a p
Brought forward, Total A. Conservancy and Works ...	9,421 14 8	28,289 3 4	14,790 6 10	28,612 10 7	1,04,566 15 3	1 85,681 2 8
B.—ESTABLISHMENTS.						
I —Salaries —						
(a) Conservators	14,009 5 0	...		...	..	14,009 5 0
(b) Superior Officers	13,695 11 10	17,7-5 5 2	6 007 2 11	8,864 9 1	5,991 11 6	52,334 8 6
(c) Subordinate Forest and Depot Establishments	...	3 142 8 8	1 1-4 1 3	2,330 8 9	2,034 12 3	8 661 14 11
(d) Office Establishments	2,026 13 8	1,452 0 0	1,139 12 0	1,090 0 0	720 0 0	6,418 9 8
(e) Deputation and Special Allowances	3,555 12 9	...	...	..	...	3,555 12 9
II —Travelling Allowances —						
(a) Conservators	2,255 2 9	...	...	..	...	2,255 2 9
(b) Superior Officers	1,003 0 0	3,050 13 8	937 8 0	1,099 0 0	1,151 0 0	7,241 5 8
(c) Subordinate Forest and Depot Establishments	..	83 7 0	82 2 8	6 3 7	..	171 13 3
(d) Office Establishments	.	64 13 2	157 11 3	207 10 2	120 11 4	550 13 11
III —Contingencies —						
(a) Stationery	41 5 6	86 6 0	48 2 0	42 15 0	44 8 0	263 4 6
(b) Carriage of tents and records	297 9 7	209 7 9	205 6 0	163 10 0	129 5 0	1,005 6 4
(c) Rents, Rates, and Taxes	306 1 6	361 0 0	238 0 0	...	...	905 1 6
(d) Pay of Police Guards	511 5 0	..	...	...	...	511 5 0
(e) Official Postage	264 8 0	112 9 0	110 6 6	84 5 6	66 8 0	638 5 0
(f) Sundries	1 112 12 1	202 9 2	367 3 1	351 1 3	550 11 11	2,574 5 6
TOTAL, B —ESTABLISHMENTS .	39,079 7 8	26,540 15 7	10,437 7 9	14,229 15 4	10,809 4 0	1,01,097 2 9
GRAND TOTAL OF EXPENDITURE ...	48,501 6 4	54,830 2 11	25,227 14 6	42,842 9 11	1,15,376 3 3	2,86,778 4 11

CALCUTTA
The 10th June, 1884

G J. VAN SOMFREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 54—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE

Account Current for the year 1883-84.

DR.

Heads of account.	Rs. a. p.	Rs. a. p.
To Cash balance on the 1st April, 1883	...	197 14 10
„ Revenue as per annual summary (Form No. 53)	...	2,71,563 14 11
„ Service funds—		
Uncovenanted Service Family Pension Fund, Bengal ...	...	1,157 7 0
„ Deposits	...	1,730 0 0
„ Forest cash remittances (Local)—		
Remittances from State Treasuries	2,96,062 6 5	
Inter-divisional transfers	7,444 8 5	
		3,03,506 14 10
„ Advances recoverable	...	1,33,760 3 10
„ Account current other Governments—		
Government of India	958 6 2	
Ditto Central Provinces	125 0 0	
Ditto Panjáb	81 4 0	
Ditto Bengal	84 4 10	
Ditto Assam	150 0 0	
Ditto Bombay	302 13 11	
		1,701 6 11
„ Inter-departmental Transfers—		
Public Works Department, other Branches	8,766 10 11	
Military Department, Bengal	16 8 0	
„ Civil Departments—		
Mathematical Instrument Department	1,093 7 0	
		9,876 9 11
Total ...	...	7,23,515 7 3

CR.

Heads of accounts.	Rs. a. p.	Rs. a. p.
By Expenditure as per annual summary (Form No. 55) ...	...	2,86,778 4 11
„ Deposits	...	2,620 0 0
„ Forest cash remittances (Local)—		
Remittances to State Treasuries	1,42,908 1 4	
Inter-divisional transfers	11,000 11 9	
		1,53,908 13 1
„ Advances recoverable	...	1,32,168 6 8
„ Account current other Governments—		
Government of India	20,347 4 8	
Ditto Central Provinces	1,768 6 4	
Ditto Panjáb	14 777 2 2	
Ditto British Burma	3,345 0 0	
Ditto Bengal	2,435 3 0	
Ditto Assam	3,577 0 3	
Ditto Madras	656 11 4	
		46,906 11 9
„ Inter-departmental Transfers—		
Public Works Department, Rájputána-Malwa State Railway,	8,515 5 0	
Ditto ditto Rewari-Ferozpur State Railway,	60,871 11 0	
Ditto ditto Other Branches ...	5,483 [illegible]	
Military Department, Bengal	25,552 8 4	
„ Civil Departments—		
Rewards for passing examination	350 0 0	
Miscellaneous	378 4 0	
		1,01,131 3 9
„ Cash balance on 31st March, 1884	...	1 15 1
Total ...	...	7,23,515 7 3

CALCUTTA
The 10th June, 1884.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 55—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Outstanding and liabilities on account of contractors and disbursers for 1883-84.

Division.	Department debtor. At commencement of year.	Department debtor. Recoveries in cash and value of supplies and work done during the year.	Department debtor. At close of year.	Department creditor. At commencement of year.	Department creditor. Payments made during year.	Department creditor. At close of year.	Balance due. To Department (outstandings)	Balance due. By Department (liabilities)	Remarks.
		Rs. a p	Rs. a. p	Rs. a. p	Rs. a. p	Rs. a. p.	Rs. a. p		
Direction ...	...	3,226 6 5	3,226 6 5	1,262 15 6	3,540 9 4	4,803 9 0	1,577 2 7	...	
Forest School	5 1 0	17,514 6 9	17,519 7 9	..	17,831 13 6	17,831 13 6	312 5 9	...	
Dehra Dún	...	7,454 13 7	7,454 13 7	2 632 0 7	6,300 6 2	8,932 6 9	1,477 9 2	...	
Saháranpur	...	12,313 15 11	12,313 15 11	1,259 0 8	11,587 1 7	12,846 2 3	532 2 4	...	
Jaunsar ...	...	30,296 4 0	30,296 4 0	4,409 6 8	30,308 14 10	34,718 5 6	4 422 1 6	...	
Tons ...	...	62,974 5 2	62,974 5 2	6,437 4 11	62,599 9 1	69,036 14 0	6,062 8 10	...	
Total ...	5 1 0	1,33,780 3 10	1,33,785 4 10	16,000 12 4	1,32,168 6 8	1,48,169 3 0	14,383 14 2	...	

CALCUTTA
The 10th June, 1884.

G J VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests)

ANNUAL FORM No. 56—(PRESCRIBED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Revenue received and outstandings on account of revenue during 1883-84.

Division.	Particular	Outstandings at commencement of year.	Value of sales and other revenue during year	Total.	Amount realised during year.	Balance due to the Department at end of year	Remarks.
		Rs. a p	Rs. a p	Rs a. p	Rs. a. p.	Rs. a. p.	
Direction ...	Sale of timber and other produce	...	8,070 14 0	8,070 14 0	8,070 14 0	...	(a) Includes Rs 57-4 0 written off as per Local Government No 36F, dated 15th March, 1884.
Forest School,	Ditto ditto	...	...	...	...	...	(b) Amount realised — Rs. a. p As per Form No. 53... 271,564 13 11 Amount written off as per Local Government No 36F., dated 15th March, 1884 ... 57 4 0 271,622 1 11
Dehra Dún ...	Ditto ditto	3,698 6 2	65,656 4 9	69,354 10 11	64,943 10 11	4,411 0 0	
Saháranpur ..	Ditto ditto	340 0 0	37,756 10 11	38,096 10 11	(a) 36,962 14 11	1,133 12 0	
Jaunsar ...	Ditto ditto	7,170 0 0	34,864 14 1	39,034 14 1	38,946 12 1	88 2 0	
Tons ...	Ditto ditto	...	1,42,197 14 0	1,42,197 14 0	1,22,697 14 0	19,500 0 0	(c) From Public Departments ... ... 70 0 0 From other purchasers, 25,062 14 0 25,132 14 0
	Total ...	8,208 6 2	2,8 ,546 9 9	2,96,754 15 11	(b) 2,71,622 1 11	(c) 25,132 14 0	

CALCUTTA :
The 10th June, 1884.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 57—(Prescribed).

Forest Department, North-Western Provinces and Oudh, School Circle.

Financial results of the year 1883-84.

Division.	*Timber and other produce removed from the forests by Government agency.*		*Other revenue.*		*Formation, protection, and improvement of forests.*	*Total.*		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts	Charges.	
	Rs	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	
Direction ...	...	30,286	8,071	7,087	11,128	8,071	48,501	
Dehra Dún ...	...	11	64,944	6,303	48,516	64,944	54,830	
Sahárapur ...	...	...	36,905	11,136	14,092	36,905	25,228	
Jaunsár ...	35,818	26,316	3,129	2,262	14,265	38,947	42,843	
Tons ...	1,07,798	95,952	14,900	2,046	17,378	1,22,698	1,15,376	
Total ...	1,43,616	1,52,565	1,27,949	28,834	1,05,379	2,71,565	2,86,778	

FORM No. 58—(Suggested).

Forest Department, North-Western Provinces and Oudh, School Circle.

Trees felled by Government agency during the year 1883-84. (*Selection fellings.*)

Division.	*Trees felled.*		Remarks
	Description.	Number.	
Dehra Dún	Sál	95	
	Tún	12	
	Sissu	7	
	Miscellaneous ...	5	
	Total ...	119	
Sahárapur ...	*Nil.*		
Jaunsár	Deodár	11	
	Oak	335	
	Fir	288	
	Chir (Pinus longifolia),	100	
	Box	62	
	Total ...	796	
Tons	Deodár	421	
	Chir (Pinus longifolia),	122	
	Tun	1	
	Total ...	544	
	Grand Total ...	1,459	
	Abstract for the Circle.		
	Sál	95	
	Deodár	432	
	Chir (Pinlos longifolia),	222	
	Oak	335	
	Fir	288	
	Tún	13	
	Sissu	7	
	Box	62	
	Miscellaneous ...	5	
	Total ...	1,459	

FORM No. 59 (SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Outturn of timber and other produce cut and collected by Government agency during the year 1883-84.

Division	Produce cut and collected. How obtained.	Description	Number or quantity.	Cubic feet	Remarks
Dehra Dun ...	Cut from the forest	Sál pieces ...	95	548	
		Tún „ ...	12	264	
		Sissu „ ...	7	48	
		Sal poles ...	22	40	
		Miscellaneous poles	60	115	
		Do do.	5	8	
		Miscellaneous saplings,	256	587	
	Confiscated ...	Total timber ...	...	1,610	
		Charcoal (mds.)	100	...	
Saháranpur	Drift ...	Sál piece ...	1	3	
		Chir „ ...	1	4	
		Miscellaneous piece	14	32	
		Total timber ...	...	39	
		Firewood (mds.)	900	...	
		Bamboos (scores)	267	...	
Jaunsar ...	Selection fellings,	Box pieces, 1st class ...	394	394	
		Do, 2nd „ ...	114	53	
		Deodár spar	1	9	
	Fallen trees ...	Kharsu poles ...	70	35	
		Total timber ...	...	491	
	Selection fellings,	Oak firewood ...	9,583	Mds	
		Fir „ ...	17,894	„	
	Fallen trees	Oak „ ...	4,017	„	* The result of coppicing operations.
		„ „ ...	3,196*	„	
		Fir „ ...	10,800	„	
	Thinnings ...	Oak „ ...	467	„	
		Fir „ ...	100	„	
	Otherwise obtained.	Oak „ ...	2,290	„	
		Fir „ ...	1,508	„	
		Total firewood ...	49,849	„	
		Charcoal ...	873*	„	
	Selection fellings,	Broad gauge deodár sleepers ...	56	194	
		Metre do. do. ...	62,753	83,671	
		Chir sleepers ...	250	1,046	
		„ scantlings ...	2,471	6,722	
		Deodár logs ...	21	2,100	
		Tun logs ...	1	40	
		Deodár scantlings ...	516	614	
	Drift ...	Metre gauge deodár sleepers ...	10½	14	
		Broad gauge deodár sleepers ...	9	33	
		Total timber ...	...	94,434	
		Abstract for the Circle.			
		Sál pieces ...	96	551	
		Tún „ ...	13	304	
		Sissu „ ...	7	48	
		Deodar broad guage sleepers	65	227	
		Do. metre do. ...	62,763½	83,685	
		Do. logs ...	21	2,100	
		Do. scantlings ...	516	614	
		Do. spar	1	9	
		Chir sleepers ...	250	1,046	
		Do. scantlings ...	2,472	6,736	
		Box pieces ...	508	447	
		Miscellaneous pieces	14	32	
		Kharsu poles ...	70	35	
		Sál poles ...	22	40	
		Miscellaneous poles, &c.,	321	710	
		Total timber ...	...	96,574	Total for the Circle
		Firewood	50,749	Mds.	
		Charcoal	973	„	
		Bamboos	267	Scores.	

FORM No. 60—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Timber and other produce received from Forests in Sale Depôts during the year 1883-84.

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks
Dehra Dún ...	.	...	...	...	
Sahéranpur ...	...	...	...	...	
Jaunsár ..	Chakráta ...	Deodár scantlings — ..	945	1,204	
		Rai ditto	1,314	1,130	
		Deodár spars	...	6	Owing to a remeasurement of the 172 spars received last year.
		Ditto posts	100	34	
		Firewood, oak	14,766	Mds.	
		Ditto, fir	30,035	"	
		Charcoal	873	"	
Tons ...	Delhi ...	Metre gauge deodár sleepers ...	3,970	5,294	
	Hissar ...	Ditto ditto ...	39,815	53,087	
		Abstract for the Circle.			
		Deodár scantlings (No) ...	945	1,204	
		Metre gauge deodár sleepers (No.),	43,785	58,381	
		Deodár spars	...	6	
		Ditto posts	100	34	
		Rai scantlings	1,314	1,130	
		Total timber ...	...	60,755	Total of the Circle.
		Firewood (mds.)	44,801	...	
		Charcoal (mds.)	873	...	

FORM No. 61—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Sales of timber and other produce cut and collected by Government agency during the year 1883-84.

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		SOLD FROM DEPÔTS.			
Dehra Dún,	*Nil.*	*Nil.*	...	...	
Saharanpur,	*Nil.*	*Nil.*	...	...	
Jaunsár ...	Chakráta ...	Deodár scantlings (No.) ...	1,391	2,751	
		Do. spars and posts " ...	272	599	
		Fir and pine scantlings " ...	2,075	1,928	
		Sissu " " ...	2	2	
		Firewood, oak (Mds.) ...	13,416	...	
		Do., fir " ...	30,773	...	
		Do., oak fagots " ...	159	...	
		Charcoal " ...	57	...	
Tons	Delhi ...	Metre gauge deodár sleepers (No.)	4,583	6,111	
	Hissár ...	Do. do. " ...	31,849	42,465	
		SOLD LOCALLY.			
Dehra Dún,	Various ...	Confiscated miscellaneous saplings (No.) ...	252	580	
		Do. do. poles " ...	4	7	
		Charcoal (Mds.) ...	100	...	
Saháranpur,	Ditto ...	Sál piece (No.) ...	1	3	
		Miscellaneous pieces " ...	15	36	
		Firewood (Mds.) ...	900	...	
		Bamboos (Scores) ...	267	...	
Jaunsár ...	Ditto ...	Deodár scantlings (No.) ...	508	413	
		Do. spar " ...	1	9	
		Oak pieces " ...	70	35	
		Fir poles " ...	12	12	
		Chir scantlings " ...	1,994	3,184	
		Firewood, oak (Mds.) ...	4,111	...	
		Do., fir " ...	267	...	
Tons ...	Ditto ...	Broad gauge deodár sleepers (No.)	19,014	66,161	
		Metre do. do. " ...	571½	762	
		Chir scantlings " ...	1,048	1,747	
		Abstract of the Circle.			
		SOLD FROM DEPÔTS.			
		Deodár scantlings (No.) ...	1,391	2,751	
		Do posts, &c. " ...	272	599	
		Fir and pine scantlings " ...	2,075	1,928	
		Metre gauge deodár sleepers " ...	36,432	48,576	
		Sissu scantlings " ...	2	2	
		Total timber ...	...	53,856	Total sold from depôt.
		Firewood (Mds.) ...	44,348	...	
		Charcoal " ...	57	...	
		SOLD LOCALLY.			
		Deodar scantlings, &c. (No.) ...	509	422	
		Fir and oak pieces " ...	82	47	
		Broad gauge deodár sleepers " ...	19,054	66,161	
		Metre do do. " ...	571½	762	
		Miscellaneous timber ...	273	626	
		Chir scantling	3,042	4,931	
		Total timber ...	...	72,949	Total sold locally.
		Firewood (Mds.) ...	5,278	...	
		Charcoal " ...	100	...	
		Bamboos (Scores) ...	267	...	

ANNUAL FORM No. 62—(Prescribed).

Forest Department, North-Western Provinces and Oudh, School Circle.

Account of Timber and other Produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1883 84

Particulars	No or quantity	Cubic feet	Total of each head. No or quantity	Total of each head. Cubic feet.
Balance at commencement of the year.				
Dehra Dún Division	Nil			
Sahárunpur Division	Nil			
Deodár scantlings No	6,346	13,850		
Fir and pine do "	817	856		
Sissu planks "	2	2	...	14,708
Jaunsar Division, Firewood, oak Mds	166			
Ditto, fir "	2,352			
Ditto, oak fagots "	159		Mds 2,677	
Charcoal "	315	...	" 315	
Tons division, Broad gauge deodár sleepers, No	582	2,017		
Metre gauge ditto, "	613	817		2,834
Total, balance, Timber		..	...	17,542
Firewood Mds.			2,677	
Charcoal "			315	
Received from the Forests in Depôts				
Deodar scantlings No	945	1,204		
Ditto posts, &c. "	100	40		
Metre gauge deodar sleepers "	43,785	58,881		
Fir scantlings "	1,314	1,130	...	60,755
Firewood, oak Mds	14 766			
Ditto, fir "	30,035		Mds. 44,801	
Charcoal "	873		" 873	
Received from the Forests, &c., and sold locally.				
Deodár timber No.	509	422		
Broad gauge deodar sleepers "	19,054	66,161		

Particulars.	No or quantity.	Cubic feet.	Total of each head No or quantity	Total of each head Cubic feet.
Removed by purchasers from Depôt				
Deodar scantlings No.	1,663	3,350		
Metre gauge deodár sleepers "	36,432	48,576		
Fir and pine scantlings "	2,075	1,928		
Sissu ditto "	2	2	...	53,856
Firewood, oak Mds	13,416			
Ditto, fir "	30,773			
Ditto, oak fagots "	159		Mds. 44,348	
Charcoal Mds	57		" 57	
Sold locally				
Deodár scantlings No	509	422		
Fir and oak ballis "	82	47		
Broad gauge deodár sleepers "	19 054	66 161		
Metre ditto ditto "	571½	762		
Miscellaneous timber "	2"2	626		
Chir scantlings "	3,042	4,931		72,949
Firewood Mds	5,278		Mds 5,278	
Charcoal "	100	..	" 100	
Bamboos Scores	267	...	Scores, 267	
Used by Department (not brought to Depôt).				
Sál trees No.	95	548		
Tun " "	12	264		
Sissu " "	7	48		
Miscellaneous trees "	5	8		
Sal poles "	22	40		
Miscellaneous trees "	60	115	..	1,023

Metre ditto ditto ...	"	571½	761			
Chir scantlings	"	3,042	4,931			
Fir and oak poles .. .	"	82	47			
Miscellaneous drift, &c., timber ..	"	...	626			72,949
Firewood	Mds	5,278	...	Mds. 5,278		
Charcoal	"	100	...	" 100		
Bamboos (drift)	scores,	267	...	scores, 267		
Received from the forests, and used by Department						
Sál trees	No.	95	548			
Tun "	"	12	264			
Sissu "	"	7	48			
Miscellaneous trees	"	5	8			
Sál poles	"	22	40			
Miscellaneous poles	"	60	115	...		1,023
GRAND TOTAL, Timber ...	No	...	...			152,269
GRAND TOTAL, Firewood .	Mds	...	...	52,756		
GRAND TOTAL, Charcoal ...	"	...	...	1,288		
GRAND TOTAL, Bamboos ...	scores,	...	...	267		

Used by Department from Depôt						
Deodár scantlings	No.	402	1,018			
Fir ditto	"	9	9			1,027
Charcoal	Mds	3	...	Mds. 3		
Lost in restacking.						
Firewood, oak	Mds.	150				
Ditto, fir	"	97		Mds. 147		
Transferred to Dágpathar Depôt.						
Broad gauge deodár sleepers ...	No.	583	2,017			2,017
Balance at close of the year.						
Dehra Dun Division.		Nil.				
Saháranpur Division.		Nil				
Jaunsár Division						
Deodár scantlings	No.	5,326	10,725			
Fir and pine scantlings	"	47	50	..		10,775
Firewood, oak	Mds.	1,466				
Ditto, fir	"	1,517	.	Mds 2,983		
Charcoal	"	1,128	...	" 1,128		
Tons Division.						
Metre gauge deodár sleepers ...	No	7,966	10,622	...		10,622
Total, balance. Timber ...	"	...	...	13,319		21,397
Total, balance. Firewood ...	Mds.	...	...	2,983		
Total, balance. Charcoal ...	"		...	1,128		
GRAND TOTAL ... Timber ...	No	...	..	...		152,269
GRAND TOTAL ... Firewood ...	Mds.	...	...	52,756		
GRAND TOTAL ... Charcoal ...	"	...	..	1,288		
GRAND TOTAL ... Bamboos ...	Scores	...	...	267		

FORM No 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84.

Division.	Produce removed. Description.		Number or quantity	Amount of revenue	Amount actually realised during the year
				Rs	Rs
Dehra Dún ...	Sál trees	No	3 871	3 511	5,011
	Sain "	"	1,067	2 301	2,301
	Sain scantlings	"	10,343	6,701	6,701
	Chir "	"	4,950	871	871
	Sissu trees		400	1,862	1,862
	Haldu		196	308	308
	Dudhi		20	49	49
	Pieces of timber, miscellaneous kinds ...		289	101	101
	Kukat scantlings		7,406	2 049	2,049
	Lease of standing and fallen dry wood ...		49,520	6 190	5,757
	Sál tors and poles		3,519	2,146	2,146
	Saplings		26,578	1,315	1,315
	Total timber ...		...	32,484	28,471
	Firewood	Mds	50,771	3,177	3,177
	Lease of fallen firewood ...	"	34,416	2,151	1,985
	Charcoal		538	81	81
	Total firewood and charcoal ...		...	5,409	5,243
	Bamboos	Scores	37,458	4 464	4,464
	Lease of bamboos	"	2 904	352	352
	Banais ...	No	21,600	27	27
	Total bamboos ...		...	4,843	4,843
	Grazing (animals)	No	35,747	8,867	8,867
	Fodder, grass, head, &c., loads ...		1,126	62	62
	Total grazing ...		...	8,929	8,929
	Lease of limestone			3,674	3,674
	Ditto hides ...		...	455	410
	Ditto honey and wax		...	30	30
	Ditto horns		...	110	110
	Ditto semla gum		...	325	325
	Other minor produce, Leases ...		...	4,567	4,301
	Other minor produce, Sales of passes and tickets			1,664	1,664
	Total minor produce ...		...	10,825	10,514
	GRAND TOTAL ...			62,410	58,000
Saháranpur ...	Miscellaneous poles	No	1,224	408	408
	Ditto saplings	"	2,810	113	113
	Lease of standing and fallen dry wood (c. ft.)		15,849	3,743	3,472
	Total timber ...		...	4,264	3,993
	Firewood	Mds	36,456	1,519	1,519
	Lease of fallen firewood ...	"	151,368	6,734	6,307
	Total firewood ...			8,253	7,827

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1883-84—(concluded).

Division.	Produce removed. Description.		Number or quantity.	Amount of revenue.	Amount actually realised during the year.
				Rs.	Rs.
Sahâranpur—(*concluded*).	Brought forward ...	...	...		
	Bamboos ...	Scores	5,164	624	624
	Lease of bamboos	"	23,749	2,969	2,969
	Total bamboos	...	...	3,593	3,593
	Grazing animals	No.	98,140	13,588	13,588
	Fodder grass	...		50	50
	Total grazing	...	...	13,638	13 638
	Pula grass		...	573	573
	Leaves	...	...	169	169
	Fruits	...	..	18	18
	Stones	...	...	10	10
	Gums	. .	...	53	53
	Miscellaneous produce .	...	...	73	73
	Lease of minor produce ...	...	...	7,071	6,634
	Total minor pooduce	...	...	7,967	7 530
	GRAND TOTAL	...	...	37,715	36,581
Jaunsár ...	Sissu trees	No.	10	52	52
	Chir "	"	50	200	200
	Miscellaneous trees	"	32	104	104
	Haldu pieces ...	"	18	108	108
	Bakli scantlings	"	72	67	67
	Miscellaneous thams, &c.	...	430	34	34
	Total timber	...	...	565	565
	Firewood	Mds.	1,850	74	74
	Lease of firewood	"	..	260	242
	Charcoal	"	5	1	1
	Total firewood	...	...	335	317
	Ringals	Scores	9,821	150	150
	Lease of bamboos	...	...	6	6
	Total bamboos	.	..	156	156
	Grazing animals	No.	2,892	1,467	1,467
	Total grazing	.	.	1,467	1,467
	Other minor produce (leased) ...	...	...	199	199
	Fruits	...		1	1
	Total minor produce	...	...	200	200
	GRAND TOTAL	...	...	2,723	2,705
Tons ..	Deodár trees	No.	21	34	34
	Broad gauge deodár sleepers ...	"	3,668	718	718
	Metre gauge sleepers ...	"	7,573	710	710
	Chir trees	"	40	120	120
	Total timber	...	...	1,582	1,582
	Grazing animals	No	3,674	813	813
	Total grazing	. .	...	813	813
	GRAND TOTAL	...	. .	2,395	2,395
	ABSTRACT FOR THE CIRCLE.				
	Timber	...	...	38,815	34,611
	Firewood and charcoal ...	...	...	13,997	13,427
	Bamboos	...	..	8,592	8,592
	Grazing dues, &c ...		...	24,847	24,847
	Minor produce	...	...	18,994	18,224
	Total	. .	...	1,05,243	99,681

FORM No 64—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments from depôt during the year 1883-84.

Name of Department.	Particulars of supplies.	Amount supplied		Rate. At	Rate. Per	Amount of revenue. Due.	Received.	Outstanding	Cost of Forest Department. Timber expenditure under AI.	Quota of all other expenditure chargeable against timber, &c	Total.	Comparison of revenue and expenditure. Surplus.	Deficit.
JAUNSÁR.		No.	c. ft	Rs. a. p		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs
Executive Engineer, Chakráta Division, Military Works.	Deodár karis	783	1,781	1 8 0	c. ft.	2,671	2,671	...	...	...	...	...	...
	Ditto planks	80	73	1 8 0	"	*120	120	...	...	...	...	...	...
	Rai planks . ..	1,370	1,190	1 0 0	each.	1,370	1,370	...	...	...	...	...	...
	Do. karis	40	80	1 0 0	c. ft.	80	80	...	...	...	...	...	...
		1,073	3.124	...	..	4,211	4,241	...	1,306	784	2,090	2,151	...
Superintendent, Park and field. Train, Sappers and Miners, Roorkee	Deodár spars	172	565	2 0 0	c ft.	1,130	1,130	...	...	...	...	...	...
	Do. telegraph posts ...	100	34	1 12 0	each.	175	175	...	...	...	...	...	...
		272	599	...	...	1,305	1,305	...	402	235	637	668	...
President, District Committee, Dehra Dún.	Deodár beams	2	95	40 0 0	each,	80	80	...	...	...	...	...	...
	Do. do.	5	73	10 0 0	"	50	50	...	...	...	...	...	...
	Do. scantlings ...	124	248	1 0 0	c. ft	248	248	...	...	...	...	207	...
		131	416	...	...	378	378	...	119	52	171	207	...
	Total timber ...	1,426	4,139	..	...	5,924	5,924	.	1,827	1,071	2,898	3,026	...
Executive Engineer, Chakráta Division, Military Works.	Oak firewood		4,867	15 0 0	100 c. ft.	730	730	...	...	...	...	...	...
	Fir do.		533	15 0 0	"	80	80	...	...	...	...	...	...
	Oak do.		2,666	12 6 0	"	330	330	...	...	...	...	...	...
	Fir firewood		44,400	22 8 0	"	9,945	9,945	..	...	...	...	...	...
	Ditto		13,467	25 0 6	"	3,371	3,371	...	...	...	...	...	...
	Oak ditto		9,300	33 0 0	"	3,069	3,069	...	...	...	...	...	...
	Ditto		12,000	30 0 0	"	3,600	3,600	...	...	...	...	...	...
	Ditto		638	15 8 0	"	107	107	...	...	...	...	...	...
	Total firewood ...	43,960 mds.	87,921	...	...	21,232	21,232	..	13 579	3,751	17,330	3,902	...
TONS.													
Rájputána-Malwa State Railway.	Metre gauge deodár sleepers,	83		0 15 0	each.	78	78	...	5,765	589	6,354	2,161	...
Rewári-Ferozpur State Railway.	Ditto ditto ...	4,500		1 14 0	"	8,437	8,437						
	Ditto ditto ...	25,163		1 15 0	"	48,758	60,872	...	46,936	4,729	51,665	9,207	...
	Ditto ditto ...	6,686		1 13 0	"	12,119							
	Total ...	36,432		...	...	69,387	69,387	...	52,701	5,318	58,019	11,368	...
	GRAND TOTAL ...			...	...	96,543	96,543	...	68,107	10,140	78,247	18,296	...
							Deduct surplus or (deficit)		...	...	...		
							Balance for (or against) the Department					18,296	

FORM No. 65—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Abstract showing the value of Live and Dead Stock for the year 1883-84.

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.	
	No.	Value.	No.	Value.	In favour of the year	Against the year.
		Rs.		Rs.	Rs.	Rs.
DEHRA DÚN DIVISION.						
Surveying and other instruments	29	241	25	433	192	...
Tools	1,703	999	1,590	819	...	180
Office furniture	106	688	199	669	...	19
Tents	19	925	24	713	...	212
Buildings and building materials, &c.... ...	73	4,965	84	10,350	5,385	...
Miscellaneous	251	365	298	301	...	64
Elephants	2	3,000	1	2,800	...	200
Total ...	2,183	11,183	2,291	16,085	5,577	675
SAHÁRANPUR DIVISION.						
Surveying and other instruments	10	50	10	50	...	...
Machinery	21	138	21	138	...	...
Tools	919	500	919	500	...	...
Office furniture	111	651	128	737	86	...
Tents	6	215	6	447	232	...
Buildings and building materials	26	1,497	28	4,041	2,544	...
Miscellaneous	344	725	365	734	9	...
Elephants	1	2,000	1	2,000	...	...
Total ...	1,438	5,776	1,458	8,647	2,871	...
JAUNSÁR DIVISION.						
Surveying and other instruments	8	120	19	142	22	...
Tools	1,172	1,182	1,168	1,162	...	20
Office furniture	24	159	24	154	...	5
Tents	3	20	3	15	...	5
Buildings and building materials and house fittings,	181	20,059	186	21,343	1,284	...
Miscellaneous	...	...	81	327	327	...
Total ...	1,388	21,540	1,481	23,143	1,633	30
TONS DIVISION.						
Surveying and other instruments	17	252	18	230	...	22
Machinery	10	77	10	47	...	30
Tools	1,350	2,004	1,366	1,965	...	39
Office furniture	32	173	32	146	...	27
Tents	2	120	2	100	...	20
Buildings and building materials	28	6,957	30	6,713	...	244
Miscellaneous	110	233	116	274	41	...
Total ...	1,550	9,816	1,574	9,475	41	382
DIRECTION.						
Surveying and other instruments	33	317	63	741	424	...
Machinery	2	16	2	16	...	...
Tools	36	503	34	636	133	...
Office furniture	357	4,008	397	4,576	568	...
Tent	11	775	12	805	30	...
Buildings and building materials	8	20,265	9	20,605	340	...
Miscellaneous	23	2,348	35	2,376	28	...
Elephants	1	2,000	1	2,000	...	...
Total ...	471	30,232	605	31,755	1,523	...
GRAND TOTAL ...	...	78,547	...	89,105	11,645	1,087

NOTE.—Net difference in favour of the year Rs. 10,558.

FORM No 65 –(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, SCHOOL CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1883-84.

Description of timber and other produce.	On hand at commencement of the year			On hand at close of the year			Difference in value	
	No	Cubic feet	Value	No.	Cubic feet	Value	In favour of the year	Against the year
			Rs			Rs.	Rs	Rs.
DEHRA DÚN DIVISION ...	...	..	...	...	..	...	...	...
SAHÁRANPUR DIVISION ...	...	...	..	..	...	...	...	...
JAUNSÁR DIVISION—								
Deodár karis and planks ...	6,346	13,850	21,118	5,326	10,725	16,138	...	4,980
Rai karis, planks, and ballis	796	830	830	27	23	23	..	807
Kail karis and planks	21	26	32	20	25	29	...	3
Sissu planks	2	2	3	...	...	...	...	3
Oak and fir firewood	..	5,038	772		5,967	895	123	.
Oak fagots	956	.	179	...	...	...	...	179
Charcoal	...	941	855	...	3,386	1,558	703	...
Total ...	8,121	20,693	23,289	5,373	20,126	18,143	826	5,972
TONS DIVISION—								
At Dehli Depôts								
Broad gauge deodár sleepers	583	2,017	2,352		...	...		2,352
Metre ditto ditto	618	817	307	...	...	...	...	307
At Hissar Depôt								
Metre gauge deodár sleepers	...	...	...	7,966	10,622	5,975	5,975	...
In Forests.								
Broad gauge deodár sleepers	40,259	139,781	90,389	21,127	75,931	63,368	..	27,021
Metre ditto ditto ...	20,958	28,870	16,468	38 097	53,192	27,103	10,635	
Chír sleepers .	113	452	57	250	1,046	125	68	...
10 deodar logs	158	3,476	59	154	3 376	39	...	20
6 ditto	170	2,100	42	120	1,600	30	.	12
Chir beams	5	22	3		.		..	3
Total ...	62,859	177,535	1,09,657	67,714	144,667	96,640	16,678	29,695
GRAND TOTAL ..	...	–	1,82,946	.	...	1,14,783	17,504	35 667

Net difference against the year, Rs 18,163.

Appendix A.

Meteorological Observations.

Results of Meteorological Observations conducted by Dr. H. Warth *in the Forest School compound.*

[Observatory in a standard pattern shed. Instruments 4 feet above ground.]

Calendar year 1883.	Dry minimum.	Dry maximum.	Daily mean dry.	Mean vapour tension.	Mean relative humidity.	Rainfall in inches.
January	40·3	65·6	51·4	0·249	63	5·68
February	40·2	69·0	53·4	0·244	58	0·00
March	49·1	79·9	62·5	0·299	54	1·64
April	59·3	92·6	74·7	0·353	42	0·35
May	65·9	97·1	79·5	0·368	39	1·36
June	72·7	94·4	81·3	0·678	64	14·47
July	73·6	86·9	78·5	0·829	83	10·51
August	72·7	88·3	78·4	0·767	79	18·77
September ...	69·9	86·4	76·2	0·786	78	6·80
October	54·5	84·8	67·9	0·373	54	0·00
November ...	46·4	73·8	57·7	0·314	65	1·53
December ...	37·9	66·2	51·1	0·234	60	0·11
Average ...	56·9	82·3	67·7	0·455	62	62·22

Abstract of comparative observations taken at the elevated and at the standard pattern stations.

From 1st January, 1883 to 31st December, 1883.	At 4 feet from the ground.	At 66 feet from the ground.	From 1st January, 1883 to 31st December, 1883	At 4 feet from the ground.	At 66 feet from the ground.
Minimum dry ...	56·9	61·4	Minimum vapour tension,	0·438	0·408
Daily range ...	25·3	19·6	10 A.M. ditto ...	0·468	[illegible]
Maximum dry ...	82·3	81·0	4 P.M. ditto ...	1·462	0·428
10 A.M. dry ...	73·7	73·0	Mean ditto ...	0·455	0·428
4 P.M. dry ...	78·5	77·4	Minimum relative humidity.	86	71
Daily mean dry ...	67·7	69·5	10 A.M. ditto ...	54	54
Minimum wet ...	54·3	55·8	4 P.M. ditto ...	47	45
10 A.M. wet ...	62·6	61·9	Mean ditto ...	62	57
4 P.M. wet ...	64·2	63·4	Rainfall in inches ...	62·22	57·34

Appendix B.

Reducing factors.

(Spruce and Silver Fir, Jaunsár Division)

Kind of tree.	Number of tree	Girth.	Total cubic contents of tree (including branches) in cubic feet	Cubic contents of ideal cylinder.	Reducing factors.
Spruce	1	6′ 3″	206·9	349 1	59
Ditto	1	6′ 5″	239 5	368 0	65
Ditto	1	6′ 7″	219 0	352 1	62
Ditto	1	7′ 3″	314 1	427 1	·73
Ditto	1	6′ 11″	218 3	388 7	56
Ditto	1	7′ 2	243 9	419 1	58
Ditto	1	7′ 8″	299 7	440 8	·68
Total and averages ...	7	6′ 11″	248 8	392·1	63
Silver Fir	1	7′ 10″	252 0	448 7	56
Ditto	1	7′ 10″	329 5	598 3	55
Ditto	1	7′ 7	298 1	560 7	·53
Ditto	1	5′ 10″	172 7	304 1	·56
Total and averages ...	4	7′ 3	2630	478·0	5·5

Outturn in metre gauge sleepers and reducing factors of 16 deodar trees, Deotá forests (Tons Division).

Block and compartment.	No. of tree.	Girth of tree.	Length of workable timber.	Length of damaged timber.	Total height of tree.	Number of logs	Cubic content of logs.	Stacked cubic content of remainder of tree, including damaged logs	Reduced solid content of remainder of tree.	Number of sleepers produced. Accepted.	Number of sleepers produced. Rejected	Average number of sleepers for each girth of tree. No. of tree.	Average number of sleepers for each girth of tree. Good.	Average number of sleepers for each girth of tree. Rejected.	Cubic content. (a) Accepted.	Cubic content. (b) Rejected.	Total cubic content of tree, columns 8 and 10.	Proportion between total cubic content of tree and outturn in accepted sleepers, columns 13 and 14.	Average reducing factor per class of tree.	Remarks
		Ft	Ft. in	Ft in.	Ft.															
Katátách, Compartment IV.	1	6	43 9	*Nil*	80	7	73 75	112 3	74·9	45	...	..	...	...	70·20	...	148 65	·47	47	No logs broken or damaged
	2	8	68 9	12 6	115	11	166·77	148 625	99 08	72	..	2 and 3	65 5	3·0	112·32	...	265 85	·42	38	Two logs broken.
	3	8	56 3	*Nil*	112	9	154·79	167 126	111 42	59	6				92 04	9 3	266 21	·24		No logs broken.
	4	9	81 3	6 3	125	13	215 375	453 610	109·07	122	2	...	...	...	190·32	3 12	324 445	·58	58	
	5	10	81 3	*Nil.*	130	13	303·04	316 555	211·03	44	..	5 and 6	94 0	3·5	68 64	...	514·07	13	·235	This tree was affected with a bad "roulure"
	6	10	81 3	*Nil.*	150	13	341·33	462 000	308 00	144	7				324·64	10 92	649 33	34		
	7	11	118 9	18 9	125	19	355 83	271 555	181·04	181	4	7 and 8	144 0	7 0	282 36	6 24	538 87	·52	45	This is a double stemmed tree; 2 logs broken.
	8	11	75 0	31 3	135	12	341 05	140 233	93 82	107	10				166 92	15·60	434 93	·38		Five logs rotten.
	9	12	93 9	6 3	132	15	430 34	98 379	65 59	188	3	9 and 10	198 5	10·0	293 28	4 68	495 93	·59	555	One log broken.
	10	12	106 3	12 6	155	17	495 75	149 500	99 66	199	17				310 44	26 52	595 41	·52		Two logs broken.
	11	13	75 0	25 0	125	12	442 84	140 000	93 33	214	5	11 and 12	205 5	14 0	333·84	7 80	536·17	62	·56	
	12	13	62 6	37 6	175	10	462·05	214 277	142·85	197	23				307 32	35·88	604 90	·50		Six logs broken in this tree.
	13	14	93 9	18 9	140	15	518·71	320 000	213 33	225	9	13 and 14	227·0	10·5	351 00	14 04	732 04	·48	485	
	14	14	87 6	*Nil.*	170	14	563 75	240 000	160 00	229	12				357 24	18 72	723 75	·49		
	15	17	93 9	*Nil.*	155	15	968·96	336 000	224 00	326	25	..	...	...	503·06	39 00	1,192 96	·42	42	
	16	18	37 6	62 6	140	6	518 20	520·000	346·66	290	18	...	.	.	452·4	28·08	864 84	52	52	Ten logs in this tree were broken, due to the rocky nature of the ground and the consequent damage to the tree in falling
Average ...	...	...	...	...	...	12 56	...	...	...	165 125	...	...	...	...	...	...	554 896			

Appendix C.

Counting of concentric rings.

Rings counted in 1883 *by Forest Apprentices* MOUNG SHWAY HKA *and* SUNDER LAL.

Blocks.	Number of trees.	Supposed age (years.)	Average radius.	Number of rings. 0"-2"	2"-4"	4"-6"	6"-8"	8"-10"	10"-12"	12"-14"	14"-16"	16"-18"	18"-20"
						Spruce fir							
Hajawa ...	1	122	17	9	8	6	8	11	16	20	27	17	...
	2	101	14	11	9	10	13	13	13	32	...	...	...
	3	152	14	10	10	10	17	23	40	42	...	...	...
	4	125	16 45	6	6	7	9	15	28	31	23	...	...
	5	147	20	11	8	9	12	11	11	16	25	18	26
	6	85	14	15	7	11	12	12	13	15	...	...	...
Mohna ...	7	153	14	28	21	22	29	21	13	24	...	...	...
	8	122	10	12	23	23	36	28	...	...	...	...	...
	9	162	16	15	16	13	13	18	23	31	33	...	...
	10	113	10	24	20	19	22	33	...	...	...	...	...
	11	136	10	19	20	30	43	24	...	...	...	...	...
	12	143	12	15	16	12	27	35	38	...	...	...	...
	13	118	12 3	20	23	28	21	15	16	...	...	...	...
Kanjátra ...	14	147	14	15	10	6	21	23	42	30	...	...	...
	15	123	16	13	12	13	19	26	10	17	13	...	...
	16	139	15	11	11	18	30	28	20	21	...	...	...
	17	138	14	10	9	12	18	34	24	31	...	...	...
	19	99	14	15	14	13	15	14	13	15	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals and averages.	19	125	13 8	13.4	12 8	13 5	19 2	20·2	20	23·2	24·2	17·5	26
						Silver fir.							
Hajawa ...	1	124	16	12	13	10	11	13	17	18	30	...	...
	2	169	12	21	20	31	33	35	29	...	...	...	...
	3	184	12	35	32	33	27	33	24	...	...	...	...
	4	120	10	18	25	21	16	40	...	...	...	...	...
	5	195	16	27	25	22	12	13	20	34	42	...	...
Totals and averages,	5	158	13 2	22 6	23	23·4	19 8	26 3	22·5	26	36	...	...

Ring countings on deoder stumps at Deotá during 1883—(*Tons Division*).

Block and compartment.	Number of tree.	Supposed age of tree.	Aspect.	Soil.	Average radius.	Number of rings. 1" to 2"	2" to 4"	4" to 6"	6" to 8"	8" to 10"	10" to 12"	12" to 14"	14" to 16"	16" to 18"	18" to 20"	20" to 22"	22" to 24"	24" to 26"	26" to 28"	Remarks
Kahátách, compartment IV.	1	282	N.-E,	Debris of gniess and quartzite.	20"	50	41	31	16	21	21	25	24	29	24	...	...	...	...	Counted by Jogeswar Sûr, Forest Ranger.
	2	230	Do ...	Deep loamy	19½"	23	35	32	21	14	24	28	21	16	16	...	...	...	...	
	3	199	Do. ...	Ditto ..	16¾"	24	32	38	36	18	18	15	18	10 in ¾"	...	...	...	...	...	
	4	362	Do. ...	Ditto ...	26"	35	27	35	26	25	39	25	24	24	23	33	30	16	...	
	5	237	Do. ...	Ditto ..	26¾"	22	10	10	12	10	18	24	20	22	27	19	18	16	9 in ½"	
	6	278	S.-E,	Debris of gniess and quartzite.	24¾"	36	22	18	14	17	16	21	17	16	26	30	32	13 in ½"	...	
	7	243	Do. ...	Ditto ...	17"	28	39	24	27	21	35	35	20	14 in 1"	...	...	...	...	...	
	8	235	Do. ...	Ditto ..	17"	38	26	28	36	30	24	18	25	10 in 1"	...	...	...	...	...	
	9	197	W. ..	Deep loamy.	22½"	27	20	16	18	15	13	15	17	13	14	25	4 in ½"	...	...	
Average ...	...	251·4	...	...	21 083	283 or 31 4	252 or 26	232 or 25·7	196 or 21·7	171 or 19	208 or 29 1	206 or 22·8	186 or 20·6	154 or 17·1	130 or 21·6	107 or 26 7	84 or 21	45 or 15	9 or 9	

Appendix D.

Annual plans of operations, 1883-84

DEHRA DUN DIVISION

Remarks	*Plan*
Cleared	1 *Boundaries*—(i) The path along the boundary in the Western Dun will be cleared of grass and jungle
Work still in progress	(ii) About 60 pakka boundary pillars in the Tirsal forest will be repaired and numbered and 60 additional new pillars will be erected
Completed	(iii) The erection of pakka boundary pillars round the Thano forest will be completed
Still in progress	(iv) The erection of pakka boundary pillars round the Malkot forest will be completed
The present boundary is very inconvenient and has not been cut, new one is being selected	(v) The block boundaries in Tirsal will be cut
Cut and surveyed	(vi) The boundary between the Uparla and Nichla Song will be cut
	2 Measurement of standing trees to determine rate of growth
Measured	(i) The trees in the sample plots will be measured on 1st June and 1st December
This will be done by the Superintendent of Working plans	(ii) A new plot will be chosen instead of the present one near the Madhowala road
Only 1 mile found necessary; constructed	3 *Roads*—To be constructed 3 miles of Thano Lachiwala road
Length found to be 4 miles, constructed	Three miles of Thano Kaluwala road
Only 2 miles 25 chains constructed, but 19 miles of other roads made in Eastern Dun	Twelve miles in Western Dún
Idea given up.	Culvert on Assarori Kansrao road
Done	Repairs to existing roads
Completed	4 *Buildings*—(i) The officers' rest house at Lachiwala will be completed
All but completed	(ii) The officer's rest-house at Maidan will be completed.
Construction postponed	(iii) A chauki will be erected at Gobrighát
Ditto.	(iv) Ditto ditto Sabhawala
Not erected pending selection of a new site	(v) Ditto ditto Rikhikesh.
Site not yet determined	(vi) A chauki will be built at Matak Majri or Kunja, as may be determined.
Repaired	(vii) Existing buildings will be repaired
Completed	(viii) A range of out houses, including a forester's hut, will be built at Banbaha
Completed	5 *Wells*—(i) Well at Pardúni will be completed
Depth of hot weather level of water not known hence completion postponed	(ii) Well at Bulawala will be completed
Closed and placed under fire protection	6 *Protection from fire*—(i) The portion of the Nagsidh forest bounded by the Hardwár road, the Madhowala road, the Suswa river, and the Markham Grant will be protected if the Superintendent of the Dun consents to its being closed

This has not been done, but the Kharkari block instead has been put under protection.	(ii) A new closed block will be taken up in the Motichur Forest conterminous with the Bahera block
A portion only of this forest bordering on Tháno is being protected.	(iii) An attempt will be made to protect the Malkot forests by an agreement with the surrounding villages similar to that made in Tháno
	7. SECONDARY REGENERATION—
Work closed on 11th March.	(i) *Fellings*.—The sál and sain trees marked near Ramgarh in 1882-83 will be worked out by March, 1884.
Marked	(ii) The sál and sain trees in the fellings for 1883-84 will be marked.
Five hundred sain and 200 kukat have been marked and sold in the Tirsal forest; 400 bakli have been marked in Tehri-Garhwál, but not sold yet	8. *Selection fellings*.—(1) About 200 sain and 400 kukat trees will be marked in the Tehri-Garhwál and Tirsal forests.
Four hundred trees have been marked and sold.	(ii) 200 sissu trees will be marked and sold in the Súswa forest.
	(iii) Attempts will be made to dispose of the refuse timber in those compartments of the Bulawala forest in which fellings have recently been made.
Continued.	9. *Coppice-cuttings*.—The work of cutting back sál and other shoots injured by fires in Tháno and Bulawala will be continued
Done	10. *Climber-cutting*.—Climber-cutting will be pushed on in the Ramgarh and Chandrabani forest
These trees are being sold to lime-burners	11. *Fellings in district land south of Messrs. Lister & Co.'s estate*.—The timbers standing here will be sold by auction.
Done.	12. *Plantations*.—(1) Experimental plantation of sál and sain to be carried out at Lachiwala.
Done.	(ii) Sowings of sissu and Khair at Banbaha
Postponed.	(iii) Sowings of bamboos in Johra block
Done.	(iv) Experimental sowings of bamboo in the rains.
Done	(v) Repairs to plantations at Phandawala and Ramgarh.
Not found necessary	(vi) Seedlings from Forest School nursery taken out to Ramgarh or Lachiwala
Effected	Sale of leases.

SAHÁRANPUR DIVISION.

1. Boundary cleared in Central Range and pillars now being erected.	1 *Boundaries*.—The work of clearing the boundary lines and making a ditch where necessary together with the addition of permanent pillars where required will be completed; for details *vide* plan of operations, 1882-83.
2. Obtained.	2 *Areas*.—Areas of the blocks will be obtained from the Forest Survey Department.
3. Postponed.	3. *Record of reserves*.—The record will be drawn up on the completion of the demarcation work
4. Done.	4. *Measurement of standing trees to determine the rate of growth*.—The trees in the two sample plots will be remeasured in order to determine the rate of growth.
5. (i) Is being done.	5 *Roads and compartment lines*.—(i) The Hardwár-Khara road will be made into a good cart road, 15 feet wide, as far as funds will permit
(ii) Postponed to 1884-85	(ii) The roads of the Andheri, Lakarkot, Dholkand, and Rasulpur blocks will be made into 15 feet wide cart roads.

(iii) Postponed to 1884-85	(iii) The path from Daula to the Khara canal rest-house will be repaired and made into a bridle road, 4 feet wide.
(iv) Ditto	(iv) The steep places along the compartment lines will be made easy.
6. (i) Carried out, except for Budhaban block, which is postponed for the present.	6. *Fire protection.*—(i) The present system of fire protection will be continued, and two fresh tracts—one in Lalwala and Sukh blocks, the other in Budhaban and Mobarki blocks—will be protected if the Collector's sanction (which has been asked for) be accorded.
(ii) An area of 375 acres has been protected. Balance postponed till 1884-85.	( ) About 500 acres in the Tira block, immediately below the Hardwár-Khara road, will be protected from fire
(iii) Done.	(iii) The Collector's sanction to the closing of this block will be asked for.
7 (i) Dholkand done.	7 *Buildings*—The rest-house at Dholkand will be completed.
(ii) Kasumri postponed till 1884-85.	(ii) A new house will be erected at Kasumri.
(iii) Scheme not yet sanctioned.	(iii) Two rangers' huts will be built at the places hereafter to be determined on for rangers' head-quarters under the revised establishment scheme.
(iv) Postponed as not being urgent	(iv) Temporary rest-houses will be erected at Rani Chauki, Mohand, and Budshahibagh.
(v) Maiapur done.—Remainder during 1884-85 as may be necessary.	(v) Five new chaukis will be built at Sahesra, Raeghati, Boribara Ranipur, and Maiapur.
8. Ranipur and Pathri done—Kasumri will be done in 1884-85.	8. *Wells*—Wells will be made at Kasumri, Ranipur, and Pathri The well at Mohand will be protected.
9. (i) Done.	9 *Plantations.*—(i) About 10 acres will be sown up with sál in the Sendhli block.
(ii) Done.	(ii) Ten acres with kikar and mahua at Ranipur (in continuation of the existing plantations).
(iii) Postponed.	(iii) Four acres with khair and sissu at Shamansur.
(iv) About 4 acres sown	(iv) At Pathri 10 acres will be sown up with kikar, mahua, mango, albizzias, casuarina, and ailanthus excelsa.
10. (i) Done.	10 *Bamboos*—(i) The experiment in progress at Ranipur regarding the thinning of bamboos must be carefully carried out.
11. (i) Done.	11. *Climber-cutting.*—(i) The cutting of climbers will be continued in the Rasulpur block, compartment by compartment.
(ii) Postponed.	(ii) And then it will be carried on from Bethan westward to Dholkand.
(i) Done.	12 *Provision of fuel for Kankhal, Jowalapur, &c.*—(i) To meet the pressing demands the Collector's sanction will be asked for the closing of a part of the Tira block.
(ii) Five compartments closed.	(ii) The whole block will be divided into about 20 compartments of 75 acres each; six of these will be closed at first.
(iii) Now being coppiced	(iii) One compartment being coppiced annually.
13. (i) Not done, as no one was willing to take the terms offered.	13. *Cultivation within the forest boundary.* (i) The introduction of temporary cultivation will be permitted on annual leases in places which cannot for some time be taken in hand by the Forest Department.

14 (i) Done	14 *Removal of dry timber and minor produce* —(i) All the blocks will be leased, but the protected areas will be closed during the fire season
(ii) Project abandoned	(ii) Thinnings will be carried out in Sepra nala Sakrauda amongst the suppressed sál, and dying trees can be thinned out, their stools being cut flush with the ground to favor coppicing This work must be most carefully done, as the crop is nowhere dense
15 Done	15 *Use of marks*—Each contractor will be required to use an approved mark
16 Done	16 *Herbarium specimens*—Herbarium specimens to be collected

JAUNSAR DIVISION.

Done in part	1 *Boundaries*—Pillars to be erected along the main roads where they pass from one block to the next and also at the mile posts.
Map of Mohna block made, but not yet received Cantonment block maps not yet made	2 *Surveys*—An enlarged map of Mohna block, 16"=1 mile, and similar maps of the cantonment blocks to be obtained from the Forest Survey Department.
Divisional officer having had charge of two divisions, has been unable to complete this work	3 *Record of reserves*—To be completed for the Kalsi and Karamba forests and for the leased forests
In course of preparation for the Dhárागádh forest by the Superintendent of Working Plans	4 *Working Plans*—Valuation surveys to be made in Bodyar and Dhárागádh A description of Riknár and Shikaru forests to be prepared
The other work is still pending	Tháno block to be divided into compartments
Rings have been counted on 18 spruce and 5 silver firs by the forest students Sundar Lal and Moung Hka	5 *Ring counting (conifers)* To be continued from time to time whenever fellings are made
Calculations were made, but included in last year's report	6 *Reducing factor*—To be determined for deodar silver and spruce firs and Kharsu oak
Done	7 *Communications*—Roads and paths to be repaired. New fuel carrying roads to be made in Mohna and Hajawa blocks where required
Not done, pending new working plan	Inspection paths to be made in the Dhárागádh and Riknar forests The repairs of the Tons Chakrata road to be steadily continued
Done	The number of miles of roads and paths to be correctly calculated and entered in a register
Materials ready	8 *Buildings*—A small rest-house to be built in the Chakráta forest garden
The Konain hut has been built	A forester's hut to be built at Konain and a forest guard's hut at Bana
Not yet prepared.	A register of buildings to be prepared, showing date of building, original cost, &c
Done	9 *Fire protection*—The usual areas to be protected, and an exact area statement to be obtained from the Forest Survey Department
Statement not yet received in divisional office.	10. *Cultural operations*—Wounding the soil in Hajawa and other forests to be tried if there is a good seed year. Blue pine, deodar, spruce, silver fir, and oaks to be raised in nurseries in suitable localities.
Done 53,390 having been planted out	The 60 000 deodar seedlings in the Deothat nursery to be planted out during the rains.

This has been done	*Choli* —Konain forest to be carefully weeded.
4 357 pits have been resown with chir in Lurli block no other seed sown 28 940 deodar plants planted out in Lurli A number of plants from forest garden planted out in Soitoli block	*Cantonment blocks* —Sowings to be continued vigorously with deodar, chir bag, and blue pine
Not done, owing to scanty rainfall	*Kanjatra* —The deodar seedlings in the nursery recently established here to be put out in lines during the rains
Not pruned owing to the want of a good gardener	*Forest garden* —The fruit trees to be pruned
A small quantity of seed obtained and sown during the rains	Some more acacia melanoxylon seed to be obtained from Australia
Noted	*Hiyaua* —No planting or sowing to be done here until it is certain that natural reproduction is too slow
Done	Thinning of pinus excelsa at Konain to be continued with caution
Done	11 *Timber fellings* —Deodar timber for Chakráta to be brought from Konain
Partly done	The planks at Bhujkot to be carried to Chakráta
Done	Ten tons of boxwood to be sent to Messrs Churchill and Sim
	Wood specimens for Dr Warth to be sent to the Forest School in October, 1883
Done	12 *Fuel fellings* —The annual consumption of fuel by the troops at Chakráta to be provided for in the usual way
Done	13 *Fuel experiments* —The following experiments will be continued — (i) To determine the relation between a solid and a stacked cubic foot of oak and fir
The tank having been made in an unsuitable place, the experiment could not be carried out for want of water	
Experiment in progress	(ii) To determine the loss of weight of fuel when exposed and when stored under cover
Experiment in progress	(iii) To find the number of cubic feet solid) that are equivalent to 100 maunds of oak and fir
Noted	At the conclusion of these experiments an arrangement should be made with Commissariat Department regarding the equivalent of volume to weight
Not done sufficient charcoal in hand	14 *Charcoal-making* —To be started, if possible in Bandla or Kotha
Not done	15 *Oak coppicing* —A second plot of moru to be coppiced if a suitable locality can be found
One plot of kharsu oak marked off and the trees measured	16 *Periodical measurement of trees* —Plot of the three oaks to be marked off and the annual increase of girth measured
Done	17 *Scale of farming leases* —The Kalsi lease to be sold by auction in March
Done	18 *Collection of seeds* —Various kinds to be collected to supply indents and for the forest garden
Collections made	19 *Herbarium collections* —To be made by all forest students
Has been deferred	20 *Iron ore* —Dr. Warth to be consulted on smelting operations
Attended to	21 *Use of marks* —Special attention to be paid to this matter

Not done owing to pressure of work.	22 *Books* —Register of yield, record of works of improvement, and forest journal to be maintained

TONS DIVISION.

1-*a* This work could not be attended to owing to the absence of Deputy Conservator with Dr. Schlich during November and the transfer of Mr. Hobart Hampden to Oudh	1 *Boundaries* 1 *a* *Forests in British territory.* —All necessary corrections of the boundaries of the Deogarh forests will be made
1 *b* Has not been done for the same reason as above	1 *b.* The boundaries of the chir forests on the banks of the Tons will also be gone over
1 *c* No orders yet received, hence no steps taken	1-*c* As soon as orders are received regarding the Tehri Garhwál forests, the permanent demarcation will be effected
1-*d* This has not yet been done owing to the absence of Deputy Conservator with the Inspector General of Forests; also other orders have now been issued	1 *d.* The final demarcation of the Raengarh and Dadi forests will be carried out
1 *e* Has not been done owing to pressure of other work	1-*e* The demarcation of the Bishahr forests will be gone on with.
2-*f* Nothing has been done during the year, none of the boundaries having been yet finally adjusted	2-*f* *Record of reserves* —After the boundaries of the Deogarh forests have been corrected, the record of reserves for these forests will be proceeded with. The chir forests on the banks of the Tons and the Tehri Garhwál forests will then be gone on with, and so on with all the others
3-*g* Nothing has been done owing to pressure of other work.	3 *g* *Description of compartments* —3-*g* This work will be proceeded with for Deota, Bamasú, and Suras.
4 *h* The rings on a number of stumps have been counted	4 *h* *Ring counting* —This operation will be continued during the year in the usual manner
5 *i.* The reducing factor for 16 trees has been determined	5 *i* *Reducing factor of deodár* —The reducing factor for as many trees as possible will be ascertained
6 *j* The Jaurasi path has been completed	6 *j* *New roads and bridges* —A new 4 feet path down the Jaurasidhár to the head of the slide will be constructed
6-*k* The sledge road has been nearly completed and about 1,500 feet, including 4 bridges, remaining to be done	6 *k* In accordance with para 351 of Mr Brandis's suggestions, it is proposed to construct about 1½ miles of "sledge road" for the export of sleepers from the Jaurasi forest
6-*l* Not yet constructed.	6 *l* Two new inspection paths in the Kangá block will be constructed
6 *m.* No satisfactory arrangement yet come to hence no work done	6 *m* The Tons river path will be completed as soon as some satisfactory arrangement is come to with the Rájá of Sirmur
6 *n* The rains having been light, no extensive repairs were found necessary	6 *n* *Repairs of existing roads and paths* —The following roads will be repaired — I. Path from Dhárागarh to Deotá II Various paths in the Deota forest III Old portion of path from Deotá to Bamsu IV Portions of the path from Fulni bridge to Chéchpur bunglow V Paths in the Chéchpúr forest. VI Some slight repairs on the Thadiar wire rope bridge will be necessary. VII The Maindrot bridge will be put into order 7. *Buildings* —The following repairs will be executed —

7-o. All necessary repairs were carried out.	7-o. I. Repairs of the H. Q bungalow. II. Repairs of Lambatách hut. III. Repairs of Cháchpur bungalow. IV. Repairs of the Bámsú hut.
	7-p. *New buildings.*—The following new buildings will be constructed :—
p-I. Site levelled and timber collected, but not yet built.	p-I. Hut at Múrách forest.
q-I. Not done.	q-I. Forest guard's chauki at Thanwárá.
q-II. Not done.	q-II. Ditto at Gokul village.
q-III Ditto.	q-III. Ditto at Dadi.
q-IV. Constructed	q-IV. Ditto at Tuini bridge
8-r. All former areas protected No additions made.	8. *Fire conservancy* —8-r. All areas protected from fire will be again protected and additions made if possible.
8-s. Protected to a certain extent.	8-s. The proposed new areas in Tehri-Garhwál will be protected.
9-t. Some planting has been done in the Partil and Temple blocks by Mr. Hobart-Hampden.	9. *Cultural operations at Deotá.*—9-t. The planting up of the remaining blank spaces in the Partil block will be gone on with.
9-u. No deodar seed available for extensive operations.	9-u. If deodar seed is available, extensive sowings will be effected.
9-v. A number of plants were put out.	9-v *At Lambatách.*—The planting up of as much of the Banarpani and Garasna blocks as possible will be proceeded with.
9-w. No seed available.	9-w Sowings will be effected in Dhámti if seed is available.
9-x. A number of plants were planted out.	9-x. At Murach the planting out of all available plants will be effected, and deodar and chil sowings will also be made if seed is available.
9-y. Plants were not found to be strong enough for planting out hence left in nurseries.	9 y. *Boxwood forests.*—The plants collected at Datmir and Saurá forests will be planted out.
10-z. Thinnings in Chakorá completed and Thanwará commenced.	10-z *Thinning of chil.*—The thinning out of chil at Chakorá Lambatách will be completed and then Lohaú and Thanwara will be taken in hand.
	11. *Fellings of deodar.*—The fellings of 1883-84 will take place in the following compartments.—

			Green.	Dry.
11-I. Katátách,	III.	...	26	4
Ditto,	IV.	...	167	3
Ditto,	V.	...	2	...
Jaurasi,	III.	...	94	13
Ditto	IV.	...	262	46
Total		...	551	66

All the trees felled will be sawn up into metre ugo sleepers 6'-3"×8½×4½".

11-I. All the felling operations were carried out, and all timber sawn up at Deotá.	
11-II. At Raiengarh forest about 100 trees were sawn up as well as most of the logs.	11-II In the Raiengarh forest 108 dry and ringed trees will be sawn up, as well as all logs left by Messrs. Winton and Braidwood.
12. III. Ringing operations were commenced in compartment V, Kanga block. Some ringing was done in the Temple block.	12.-III. *Ringing operations at the Deotá forest.*—The ringing of rai and morinda in compartment IV., Temple block, will be gone on with.
13 -IV. 10,919 broad and metre-gauge rejected sleepers were sold to and exported by Kutarah Mull, timber merchant.	13 -IV. *Refuse wood and rejected deodar sleepers.*—Every effort will be made to dispose of this wood
14 -V. No timber has been felled in these forests.	14.-V. *Boxwood forests of the Tons.*—The orders of Government have been solicited as to the extent of protection of these forests. No timber will be felled at present.

15.-VI. 32,287 were exported from the Deotá forest and 28,584 left in the forest or at the head of the sledge road. It was not found necessary to export more, as no indent was received. 8,000 sleepers were exported from the Raiengarh forest.

16.-VII. Nothing done in the way of a wire tramway.

17.-VIII. Being attended to.

18.-IX. All remaining broad-gauge sleepers carried and floated to Daghpathar depôt.

19.-X. No deodar trees were sold, as some dispute took place about the price.

19.-XI. About 40 chir trees only were sold.

20.-XII. No new discoveries have been made.

21.-XIII. Nothing has yet been finally settled with regard to the river, but the present arrangements seem to work satisfactorily.

22.-XIV. Several additions have been made.

23.-XV. Endeavours have been made to comply with these orders as fast as possible.

24.-XIV. Nothing done in Tehri-Garhwál; hence no surveys executed.

25.-XVII. Bashahr demarcation not yet done.

15.-VI. *Export of metre-gauge sleepers during 1882-83.*—All sleepers to be sawn (probably about 45,000), as well as the 13,152 in stock, will be exported from the Deotá forest.

About 8,000 or 10,000 metre-gauge sleepers from Raiengarh forest will also be exported.

16.-VII. *Wire-rope tramway.*—The idea of constructing a wire-rope tramway has been superseded by the sledge road project.

17.-VIII. *Record of expenditure on sleepers.*—These records will be kept up.

18.-IX. *Raiengarh sleepers.*—All the remaining broad-gauge sleepers taken over from Messrs. Winton and Braidwood will be carried to the bank of the Paber and exported to Daghpathar depôt.

19.-X. *Sale of standing trees.*—500 standing deodar trees, which Kotarah Mull, merchant, has applied for, will be marked and sold.

19.-XI. Efforts will be made to sell 2,000 or 1,000 chir trees.

20.-XII. *Iron ore.*—Diligent search will be made.

21.-XIII. *River arrangements, Tons Division.*—The river arrangements of the Tons Division will be completed as soon as the orders of Government are received.

22.-XIV. *Collection of herbarium specimens.*—The collection already commenced will be added to.

23.-XV. *Books and records.*—All books and records will be kept up.

24.-XVI. *Surveying operations.*—As soon as orders are received on the reservation of the Tehri-Garhwál forest the survey operations will be gone on with.

25.-XVII. Maps of the Bashahr forests will be prepared.

Appendix E.

Stock account.

	On hand at commencement of year.										On hand at close of year.										Increase or Decrease in Value.					
	Dehra Dún.		Sahárán-pur.		Jaunsár.		Tons.		Direction.		Dehra Dún		Sahárán-pur.		Jaunsár.		Tons.		Direction.		Dehra Dún.	Sahárán-pur.	Jaunsár.	Tons.	Direction.	The Circle.
	C. ft.	Value.	C. ft.	Value.	C. ft.	Value.	C. ft.	Value.	C. ft.	Value	C. ft.	Value.	C. ft.	Value.	C. ft.	Value.	C. ft.	Value.	C. ft	Value.						
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs		Rs						
Timber ...	...	...	...	...	14,708	21,983	177,535	1,09,657	...	...	...	...	...	...	10,775	16,190	144,867	96,640	...	...	...	...	−5,793	−13,017	...	−18,810
Firewood and charcoal.	...	...	...	...	6,483	1,306	...	...	...	...	...	...	...	...	9,353	1,953	...	...	...	...	...	...	+647	...	...	+647
Live stock ...	...	3,000	...	2,000	...	...	...	...	...	2,000	...	2,800	...	2,000	...	...	...	...	...	2,000	−200	...	...	...	...	−200
Dead stock, including buildings, furniture, &c.	...	8,183	...	3,777	...	21,540	...	9,816	...	28,232	...	13,285	...	6,647	...	23,149	...	9,475	...	29,755	+5,102	+2,871	+1,603	−341	+1,522	+10,758
Total ...	...	11,183	...	5,776	...	44,829	...	1,19,473	...	30,232	...	16,085	...	8,647	...	41,286	...	1,06,115	...	31,755	+4,902	+2,871	−3,543	−13,358	+1,522	−7,605

Appendix F.

Statement of trees felled.

		Selection fellings, i. e., fellings of mature trees.								Thinnings.						Clearances.						Grand Total.	
		By Government agency.		By contractors.		By villagers.		Total.		By Government agency		By contractors.		By villagers.	Total.	By Government agency.		By contractors.		By villagers.	Total.		
		No.	C. ft.	No.	C. ft.	No	C. ft.	No.	C. ft	No.	C. ft.	No.	C. ft.		No.	C. ft						No.	C. ft.
Dehra Dún Division.	Sál	95	548	...	...	50	600	145	1,148	...	...	3,871	77,420	...	3,871	77,420	...	...	...	...	...	4,016	78,568
	Sain	...	...	500	8,800	...	...	500	8,800	...	...	1,067	21,340	...	1,067	21,340	...	...	...	...	...	1,567	30,140
	Tún	12	264	...	...	...	...	12	264	...	...	...	...	...	...	...	...	...	...	...	...	12	264
	Sissu	7	48	400	12,000	...	...	407	12,048	...	...	...	...	...	...	...	...	...	...	...	...	407	12,048
	Chír (*P. longifolia*)	...	...	200	10,800	...	...	200	10,800	...	...	...	...	...	...	...	...	...	...	...	...	200	10,800
	Miscellaneous	5	8	...	...	...	...	5	8	...	...	...	...	...	...	...	...	...	...	...	...	5	8
	Total { 1883-84	119	868	11.00	31,600	50	600	1,369	33,068	...	...	4,934	98.760	...	4,938	98,760	...	...	...	...	...	6,207	1,31,828
	Total { 1882-83	46	1,296	2,608	34,368	...	...	2,654	35,664	...	...	3,743	44,916	...	3,743	44,916	...	...	...	...	...	6,397	80,580
Saháranpur		...	...	..	*Nil*	...	...	...		...	...	...	..	...	...	...	...	...	...	...	...	..	*Nil*
Jaunsár Divisions	Fir and pine	388	38,778	50	5,000	492	78 720	930	122.498	216	22 133	...	..	...	216	22,133	...	...	...	...	...	1,146	144 631
	Oak	335	19,165	...	...	73	5,840	408	25,005	71	11,834	...	...	...	71	11,834	...	...	...	...	...	479	36,839
	Deodar	11	440	...	...	534	80,100	545	80,540	...	...	...	...	...	...	...	...	...	...	...	...	545	80,540
	Sál	...	...	...	...	52	260	52	260	...	...	...	...	...	...	...	...	...	...	...	...	52	260
	Sain	...	...	...	...	8	40	8	40	...	...	...	...	...	...	...	...	...	...	...	...	8	40
	Miscellaneous	62	360	92	1,830	132	7,380	236	9,570	...	...	...	...	...	...	...	...	...	...	...	...	236	9,570
	Total { 1883-84	796	58,743	92	6,830	1,291	172,340	2,179	237,913	287	33,967	...	...	...	287	33,967	...	...	...	...	...	2,466	271,880
	Total { 1882-83	892	96,417	164	11,560	1,741	175,800	2,797	283,777	60	2,362	...	...	...	60	2,362	...	...	...	...	...	2,857	286,139
Tons Division.	Deodar, { green	329	88,172	...	...	199	53,592	528	141,764	...	...	...	...	...	...	...	...	...	...	...	...	528	141 764
	Deodar, { dry	92	24,656	...	...	...	...	92	24,656	...	...	...	...	...	...	...	...	...	...	...	...	92	24,656
	Chír (*P. longifolia*)	132	12,200	40	6,000	228	34,200	390	52,400	...	...	...	...	...	...	...	...	...	...	...	...	390	52,400
	Chil (*P. excelsa*)	...	...	...	...	9,955	995,500	9,955	995,500	...	...	...	...	...	...	...	...	...	...	...	...	9,955	995,500
	Tún trees	1	50	...	...	...	...	1	50	...	...	...	...	...	...	...	...	...	...	...	...	1	50
	Oak	...	...	...	...	245	24,500	245	24,500	...	...	...	...	...	...	...	...	...	...	...	...	245	24,500
	Total { 1883-84	540	125,078	40	6,000	10,627	1,107,792	11,211	1,238,870	...	...	...	...	...	...	...	...	...	...	...	...	11,211	1,238,870
	Total { 1882-83	844	201,884	412	110,180	4,113	454,133	5 369	766,202	...	...	...	...	...	...	...	...	...	...	...	...	5,369	766,202
Circle.	Sál	95	548	...	...	102	860	197	1,408	...	...	3,871	77,420	...	3,871	77,420	...	...	...	...	...	4,068	78,828
	Sain	...	...	500	8,800	8	40	508	8,840	...	...	1,067	21,340	...	1,067	21,340	...	...	...	...	...	1,575	30,180
	Tún	13	314	...	...	...	...	13	314	...	...	...	...	...	...	...	...	...	...	...	...	13	314
	Sissu	7	48	400	12,000	...	...	407	12,048	...	...	...	...	...	...	...	...	...	...	...	...	407	12,048
	Deodar	432	113,268	...	...	733	133,692	1,165	246,960	...	...	...	...	...	...	...	...	...	...	...	...	1,165	246,960
	Fir, pine, chír, chil	510	50,978	290	21,800	10,675	1,108,420	11,475	1,181,198	216	22,133	...	...	...	216	22,133	...	...	...	...	...	11,691	120,331
	Oak	335	19,165	...	...	318	30,240	653	49,505	71	11,834	...	...	...	71	11,834	...	...	...	...	...	724	61,339
	Miscellaneous	67	368	42	1,830	132	7,380	241	9,578	...	...	...	...	...	...	...	...	...	...	...	...	241	9,578
	Total { 1883-84	1,459	184,689	1,232	44,430	11,968	1,280,732	14,659	1 509,851	287	33,967	4,938	98,760	...	5,225	132,727	...	...	...	...	...	19,884	1,642,578
	Total { 1882-83	1,898	271,709	3,334	169,668	5,111	561,778	10,343	1,003,095	208	11,942	3,743	44,916	...	3,951	56,858	...	...	...	...	...	14,294	1,059,953
	Total { 1881-82	2,261	449,619	1,393	223,497	9,141	856,268	12,795	1,559,374	60	2,362	6,182	71,960	...	6,242	74,322	...	...	...	...	...	19,037	1,633,646

Appendix G.

Yield in produce.

			1882-83.		1883-84.	
			Quantity.	Value.	Quantity.	Value.
				Rs.		Rs
Dehra Dún.						
Timber	C. ft.	...	154,713	28,561	211,917	39,180
Poles	No.	...	4,914	2,512	3,606	2,199
Saplings	No.	...	250	61	26,834	1,353
Bamboos and bansis	(scores)	...	52,364	4,134	41,468	4,951
Firewood	(maunds)		50,066	2,672	85,187	5,328
Charcoal	(ditto)	...	555	100	638	106
Minor produce, &c.		...	...	4,921	...	10,835
Grazing dues		...	...	7,341	...	8,929
	Total	...	...	50,302	...	65,771
Saháranpur.						
Timber	C. ft.	...				
Poles	No.	—	7,572	1,637	15,888	3,481
Saplings	No.	...	1,583	720	1,224	408
Bamboos	(scores)	...	10,233	327	2,810	113
Firewood	(maunds)	...	20,495	2,561	29,180	3,626
Charcoal	(ditto)	...	175,280	7,311	185,724	7,854
Minor produce, &c.		...	224	28	...	...
Grazing dues		...	...	6,298	...	7,530
			...	15,026	...	13,638
	Total	...	...	31,908	...	36,660
Jaunsár						
Timber	C. ft.	...	152,448	19,902	190,272	8,049
Saplings	No	...	1,131	98	500	40
Bamboos	(scores)	...	19,769	403	9,826	158
Firewood	(maunds)	...	35,604	20,833	53,399	22,648
Charcoal	(ditto)	...	1,149	1,257	878	819
Minor produce, &c.		...	...	327	...	200
Grazing dues		...	...	1,382	...	1,467
	Total	...	...	44,202	...	33,381
Tons.						
Timber	c. ft	...	643,428	63,030	1,232,501	68,208
Grazing dues			...	308	...	813
	Totals		...	63,338	...	69,021
Total for the Circle.						
Timber	C. ft.	...	956,156	1,13,130	1,650,578	111,918
Poles	No.	...	6,497	3,232	4,880	2,607
Saplings	No.	.	11,614	486	30,144	1,506
Bamboos	(scores)	...	92,628	7,098	80,469	8,035
Firewood	(maunds)	...	260,950	30,816	327,310	35,640
Charcoal	(ditto)	...	1,928	1,385	1,516	925
Minor produce		...	...	11,546	...	18,555
Grazing dues		...	...	22,957	...	24,847
	Grand Total	...	...	1,89,750	...	2,04,833

Appen

Disposal of produce collected

	Sold locally, i e, not brought to Depôt.				Depôt trans			
					Balance in hand at commencement of year.			
	1882 83.		1883 84		1882-83		1883 84.	
	Quantity	Value	Quantity	Value.	Quantity.	Value	Quantity.	Value.
Dehra Dún Division.		Rs		Rs		Rs.		Rs
Timber, cubic feet ...	1,529	943	...	...	...	...	...	...
Poles, ditto ...	...	...	256	38	...	...	...	...
Charcoal, maunds ...	...	...	100	25	...	...	...	...
Minor produce ...	...	4	...	...	...	...	...	...
Total Dehra Dún ...	...	947	...	53	...		...	...
Saháranpur Division.								
Timber, cubic feet .	47	14	39	8	...	...	...	...
Bamboos, scores ..	...	...	267	33	...	..	...	...
Firewood, maunds ...	200	16	900	38	...	...	...	...
Total Sahâranpur	...	30	...	79	...	...	...	...
Jaunsár Division								
Timber, cubic feet .	72	16	3,653	1,418	16,043	25,466	14,708	21,983
Firewood, maunds ...	2,369	541	4,378	1,247	5,133	3,670	2,677	951
Charcoal, ditto ...	620	697	...	...	...	...	315	355
Total Jaunsár ...	...	1,254	...	2,665	...	29,136	...	23,289
Tons Division.								
Timber, cubic feet .	2,251	1,765	68,670	57,935	2,611	1,656	2,834	2,639
Total Tons ...	...	1,765	...	57,935	...	1,656	...	2,639
Totals for the Circle								
Timber, cubic feet ...	3,899	2,738	72,362	59,361	18,854	27 122	17,542	24 622
Poles, ditto .	...	..	256	38	...	...	...	...
Firewood, maunds ...	2,569	557	5,278	1,285	5,133	3,670	2,677	951
Charcoal, ditto ...	620	697	100	25	...	...	315	355
Bamboos, scores ...	...	...	267	33	...	...	...	..
Minor produce ...	...	4	...	...	...	...	...	...
Grand Total ...	...	3,996	...	60,732	...	30,792	...	25,928

dix H.

by Government agency.

ACTIONS.

Brought to Depôt.				Total received in Depôt.			
1882-83.		1883-84.		1882-83.		1883-84.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Rs.		Rs.		Rs.		Rs.
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
4,426	4,700	2,374	3,307	20,469	30,166	17,082	25,290
28,461	17,918	44,801	19,305	33,594	21,588	47,478	20,256
496	558	873	768	496	558	1,188	1,123
...	23,176	...	23,380	...	52,312	...	46,669
62,158	84,718	58,381	75,055	54,969	86,374	61,218	77,694
...	84,718	...	75,055	...	86,374	...	77,694
66,584	89,418	60,755	78,362	85,438	1,16,540	78,297	1,02,984
...	...	...	...	...	...	...	...
28,461	17,918	44,801	19,305	33,594	21,588	47,478	20,256
496	558	873	768	496	558	1,188	1,123
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	1,07,894	...	98,435	...	1,38,686	...	1,24,303

Appen

Disposal of produce collected

DEPÔT TRANS

	Received by purchasers from depôt.				Lost or written off as useless.				Used by Department from Depôt.			
	1882-83.		1883-84.		1882-83		1883-84.		1882-83.		1883-84.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity	Value.	Quantity.	Value.	Quantity.	Value.
Dehra Dún Division.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, cubic feet...	...	...	...	...	...	...	...	...	...	...	...	...
Poles, ditto ...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal, maunds ...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...
Total Dehra Dún ...	...	...	...	...	...	...	...	...	...	...	...	...
Sahâranpur Division.												
Timber, cubic feet...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, maunds ...	...	...	...	...	...	...	...	...	...	...	...	...
Total Sahâranpur ...	...	...	...	...	...	...	...	...	...	...	...	...
Jaunsâr Division.												
Timber, cubic feet...	5,750	8,168	5,280	7,564	...	...	...	...	11	15	1,027	1,536
Firewood, maunds ...	31,916	20,622	44,348	19,288	31	15	147	73	...	...	...	...
Charcoal, ditto ...	181	203	57	64	...	...	...	...	...	...	3	1
Total, Jaunsâr ...	...	28,993	...	26,916	...	15	...	73	...	...	...	1,537
Tons Division.												
Timber, cubic feet...	62,135	83,735	48,576	69,387	...	...	...	...	...	...	...	...
Total, Tons ...	...	83,735	...	69,387	...	...	...	...	...	...	...	...
Total for the Circle.												
Timber, cubic feet...	67,885	91,903	53,856	76,951	...	...	...	...	11	15	1,027	1,536
Poles, ditto ...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, maunds ...	31,916	20,622	44,348	19,288	31	15	147	73	...	...	...	...
Charcoal, ditto ...	181	203	57	64	...	...	...	...	...	...	3	1
Bamboos, scores ...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL ...	...	1,12,728	...	96,303	...	15	...	73	...	15	...	1,537

dix H.—(*concluded.*)

by Government Agency

ACTIONS

Transferred to Daghpathar Depôt				Total issues from Depôt.				Balance in hand at close of the year.			
1882 83		1883 84		1882-83.		1883-84		1882 83.		1883 84	
Quantity	Value	Quantity.	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Rs		Rs.		Rs		Rs		Rs		Rs.
...	...	...	...	...		...		...	...	...	...
	...			...		...	...	...	...	...	...
...	...		...	...	...	...	...			...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...			...	...
...	...	...		...	...	...	...	...	...	...	...
...	...	...		...	...	...	...	...	...	...	...
...	...	...		...	...	...	...	...	...	...	...
...	...		...	...	...	...	...	...	...	...	...
...	...	...	...	5,761	8,183	6,207	9,100	14,708	21,983	10,775	16,190
...	...		...	31,917	20,637	44,495	19,361	1,647	951	2,983	895
...		...		181	203	60	65	315	355	1,128	1,058
		...	...	...	29,023		28,526	...	23,289	...	18,143
		2,017	2,332	62,135	83,735	50,593	71,719	2,834	2,639	10,622	5,975
...		...	2,332	...	83,735		71,719	...	2,639	...	5,975
	...	2,017	2,332	67,396	91,918	56,900	80,819	17,542	24,622	21,397	22,166
...	...			...	...	...		...	...	...	...
...		...	...	31,947	20,637	44,495	19,361	1,647	951	2,983	895
...	...	...	...	181	203	60	65	315	355	1,128	1,058
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	2,332	...	1,12,758		1 00,245		25,928	...	24,118

W. R. FISHER,
Offg Conservator of Forests,
School Circle, N. W. P.

ORDERS OF GOVERNMENT.

No. $\frac{564}{223 F}$ F OF 1884.

RESOLUTION.

REVENUE (FORESTS) DEPARTMENT.

Dated Allahabad, the 20th December, 1884.

READ—

Annual Progress Reports of the Administration of the Forest Department in the North-Western Provinces and Oudh for the year ending 30th March, 1884

OBSERVATIONS.—The reports on the administration of the forests in the several circles were submitted this year with commendable punctuality. For the greater part of the year the circles were under the charge of the substantive Conservators, Mr. Greig, Captain Wood, and Major Bailey.

2. The Conservator of the Oudh Circle has, as requested in the Resolution reviewing the progress of forest administration in 1882-83, given a description of the various forests in his circle, the principal trees they contain, the rights to which they are subject, and the manner in which they have hitherto been worked. Mr. Fisher has prefaced his report with a useful sketch of the principal operations of the year and the principal improvements required in the School Circle. In all circles the year was a successful one from both an administrative and a financial point of view. In the Central Circle the extension of the private agency system and the contraction of departmental operations has proved a decided financial success; in the Oudh forests the demand of several railway companies for sleepers has led to a large increase of income without, so far as is known, overtaxing in any way the capabilities of the forest; in the School Circle, while there is nothing specially noticeable in the record of the year's work, several improvements in administration have been effected, the grazing rules have been revised, an unprofitable contract for carriage of sleepers got rid of, and an interesting experiment made in the construction by Mr. Moir of a sledge-road similar to those in use in some of the continental forests.

3. The areas under the charge of the Conservators underwent little change. The figures given in the report for the Central Circle are exclusive of the area of the Bánda forests, which have not yet been brought under the Act. A report by the Board of Revenue on the subject of these forests has been received, and is now under the consideration of the Government. In the Oudh Circle there has been an increase of 42 square miles, principally owing to the transfer to the Forest Department of grass lands in Gorakhpur that were formerly managed by the Collector. In the School Circle there is a decrease of two square miles, said to be due to the transfer of an island in the Ganges from the Saháranpur to the Bijnor district, but the explanation is not very clear. If the 1,740 acres of forest on the island constituted a "reserved" tract, they would not cease to be forest owing to a change in the course of the river; and as the area of forests in the Central Circle remains unchanged, it does not appear what has become of the tract in question. The School Conservator will furnish details to Mr. Greig.

4. *Boundaries.*—The expenditure in each circle on demarcation work as compared with the preceding year is given below:—

	1882-83.	1883-84.
	Rs.	Rs.
Central	3,122	534
Oudh	2,569	1,757
School	3,577	3,747
Total ...	9,268	6,038

In the Central Circle the boundaries—except in the Ganges Division, where they were not inspected—appear to have been fully demarcated. Some work still, however, remains to be done towards improving the existing boundary pillars and marks.

In the Oudh Circle 161 miles of the Nipal boundary were demarcated during the year, but the erection or excavation of permanent marks did not keep pace with the demarcation. The greater part of the boundaries of this circle seems to be completed, but for about 200 miles the boundary is a shallow trench, and some more permanent mark is required. In the School Circle 602 miles of boundary are believed to be in good order. It should be stated what the total length of the boundaries of these forests is. In the Tons Division the boundaries were not inspected, but it is observed that arrangements have been made for their systematic inspection in future.

5. *Surveys, working plans, and annual plans of operations.*—The operations of the Forest Survey Department in the North-Western Provinces were, for the present, brought nearly to a close. About 24 square miles in the Kheri forest of the Ganges Division remained to be surveyed at the close of the year. There has been considerable delay in the working plans branch in preparing the working plans of the forests in the Central Circle, the examination of which was conducted some years ago, and the Government have not as yet been furnished with any satisfactory explanation of the delay. Mr. Fernandez has promised an explanation in his report for 1883-84. which has not as yet reached this Government. Working plans must lose much of their value if delay is allowed to occur to this extent in their preparation. In the Oudh Circle the only regular working plan is in the Kheri Division, in accordance with which 2,500 trees are felled annually. A considerable time has elapsed since the plan was prepared, and the Conservator has submitted proposals, which will be the subject of separate consideration, for an increase in the number of trees selected for felling annually. The results of the measurements of trees, counting of concentric rings, and other investigations made in the various circles are recorded in the reports and their appendices, but the conclusions arrived at are not very definite.

The reports show in detail the extent to which the annual plans of operations have been carried out. There is in all circles a discrepancy between design and execution, which, except in the Oudh Circle, where various plans were deliberately and entirely abandoned to permit the concentration of establishment and funds on the sleeper works which the demands of the new railways suddenly required, is unexplained and disappointing. Under ordinary circumstances, if a plan of operations has

been sketched and approved, it should be the aim of the forest officers to carry out and complete the projects they have professed themselves ready to undertake. Failure in their designs suggests inevitable reflections on their foresight or energy. Sometimes the statements show that operations were intended which were simply not carried out; at other times that the estimates and anticipations of the divisional officer were considerably in error. There is nothing, for example, to show why, if it was proposed to plant deodár on China, or cut creepers in West Kotah, or clear fire-lines in Bánda, or build chaukis in Dehra Dún, or make roads in the Saháranpur forests, or demarcate in Bashahr, none of these things were done. Nor does it appear why, when the forest officer of Ránikhet reported that he would give 26,000 maunds of charcoal from his reserved forest and 3,000 from Karchauli, he in the end gave 9,000 from the former and 16,000 from the latter, or why the forest officer of Dehra Dún made 19 miles in the Eastern Dún when his proposal had been to make 12 miles in the Western Dún. The preparation and submission of these annual plans of operations can be of little use and value, unless they are systematically and carefully adhered to, and deviations thoroughly and satisfactorily explained. If they have been hitherto too ambitiously framed, Conservators should limit their projects by the experience they have gained of the capabilities of their staff; and they should always be able to account for material changes or shortcomings.

6. *Establishments.*—In the Central Circle the subordinate establishment has been placed in an improved position, but the change was effected after the close of the year. Proposals for the revision of the staff of the School Circle await decision as to the terms and extent of a renewal of a lease of the forests in Tehri. The improvement of the subordinate staff and the securing a higher degree of intelligence and integrity in the members of it, is a matter of much importance in the interests both of the Government and of the villagers who live in the neighbourhood of the forests. In no circle does this seem to be more required than in the School Circle, where the Conservator's outspoken account in paragraph 6 of the venality and oppression of his subordinates is confirmed by a detail of several cases of grave peculation in his forests. Yet in no circle is there so strong a staff of English superior officers, and the Lieutenant-Governor regrets to find that frauds so extensive were possible in the circle where they ought to be most easily detected.

7. *General protection and breaches of forest law.*—The manner in which breaches of forest law have been disposed of—whether by prosecution or compromise—is shown in the following table :—

Circle.	Prosecutions.					Cases compounded.	
	Cases before the courts.	Convictions.		Acquittals.		Number of cases.	Amount received in compensation.
		Cases.	Persons.	Cases.	Persons.		
							Rs.
Central	88	76	151	9	49	456	1,777
Oudh	61	45	111	11	34	23	Not stated.
School	17	7	19	8	20	78	558
Total ...	166	128	281	28	103	557	2,335
Total for 1882-83 ...	151	117	244	22	66	436	2,168

The large proportion of acquittals in the School Circle is most unsatisfactory. A Government department cannot afford the discredit of ill-considered prosecutions. The report discloses almost incidentally their natural result. In paragraph 55 Mr. Fisher mentions that respectable contractors are in some measure deterred from direct dealings with his Department by the "fear of prosecutions." This in itself indicates something wrong, and corroborates the impression that has been produced by cases that have come under the Lieutenant-Governor's observation, that prosecutions are often undertaken without any proper regard to the evidence by which they are to be supported, or without knowledge of the most elementary rules of proof. The Conservator must in future give much more care and attention to this part of his duty, and must personally see to the litigation, and, if in doubt, take proper advice before he takes proceedings. By an examination of the cases of failure he will ascertain the causes and obtain better guidance for the future. The explanation given by Captain Wood of the small number of cases compounded in his circle, that the inhabitants of villages bordering the forests have extensive privileges, and are therefore little exposed to temptation to break forest regulations, is sufficient.

8. *Forest fires.*—The statistics of the operations for the protection of the forests from fire are given in the table below along with those of the year preceding :—

Circle.		Area attempted to be protected.	Failures.	Actually protected.	Cost during year.	Cost up to 30th June, 1884.
		Acres.	Acres.	Acres.	Rs.	Rs.
Central ...	1882-83	265,226	6,022	259,204	18,056	95,256
	1883-84	266,915	10,058	256,857	18,001	1,18,347
Oudh ...	1882-83	184,064	1,877	182,187	9,012	48,724
	1883-84	188,867	42,186	147,681	10,472	59,196
School ...	1882-83	150,118	2,962	147,156	7,659	40,820
	1883-84	157,925	2,946	154,979	9,437	50,257
Total ...	1882-83	599,408	10,861	588,547	34,727	1,84,800
	1883-84	613,707	54,190	559,517	38,000	2,22,800

There is a general concurrence of opinion that the year was an extremely unfavourable one for fire-conservancy. The dryness of the season must undoubtedly have increased the liability of the forests to catch fire and the difficulty of arresting the spread of conflagrations; and this may to some degree explain the not very satisfactory results, especially in the Oudh Circle. The School Circle has in both years enjoyed a comparative immunity from forest fires. In the Central Circle there were fewer fires than last year, but the area burned was greater. The particularly unfortunate results in the Oudh Circle were due principally to three extensive fires in Pilibhít and Kheri in April and May. Except in the Bhábar forests of the Ganges Division, the Conservator of the Central Circle does not seem to have been successful in reducing the cost of protecting his submontane forests.

9. *Grazing and fencing.*—The receipts from grazing as given under head II(*d*) of the summary of revenue were as below :—

			1882-83.	1883-84.
Central	...	...	19,555	20,375
Oudh	...	...	35,167	34,322
School	...	...	22,058	24,847
	Total	...	76,780	79,544

In the Central Circle forests 1,273 square miles out of 1,691 are open to grazing. The other Conservators have not shown the areas open to grazing in tabular form as desired by the Government of India in paragraph 6 of the orders on the last report. This point should be attended to in future. It has, however, been ascertained by a separate correspondence that in the Oudh Circle 800 square miles out of 1,090, and in the School Circle 568 out of 727, are open to grazing. These areas form the pasturage and breeding grounds of three-quarters of a million of cattle, and in all three circles important and complicated questions have risen, which require early settlement. In some parts the issue is whether the grazing can be limited in the interests of the forests, either as to area or as to numbers of cattle, without serious disadvantage to the people; in others, whether the introduction of foreign cattle has not been carried to a point at which the rights of villagers in the neighbourhood of the forests have been considerably encroached upon and injured; in a third series of references the question before Government is whether the existing system of grazing fees may not be materially simplified to the benefit both of agriculturists and the professional graziers of the country. On all these points orders will issue in the course of the Lieutenant-Governor's inspection of the forests this winter.

10. *Natural reproduction.*—Where the forests are closed and protection from fire has been afforded; the natural reproduction is generally good and contrasts well, according to the reports of the Conservators, with that in forests not closed and protected. From Lalitpur, however, it is reported that there has been no improvement in the reproduction in forests that have been under protection since 1875, and it is suggested that the trees have withered and dried up owing to fire-conservancy. Mr. Greig should endeavour to ascertain what foundation there is for this opinion, which is altogether at variance with the opinions of forest officers in other places.

11. *Artificial reproduction.*—The area of the artificial plantations in the three circles at the end of the year was 3,717 acres, on which the total cost incurred from the beginning has been Rs. 70,809, or rather less than Rs. 20 per acre; but if the statement is prepared, as stated in paragraph 37 of the School report, by an exclusion of the expenditure on unsuccessful and abandoned plantations, the figures do not accurately represent the actual expense of these undertakings. As a rule, however, these plantations have done well. The nursery in the Central Circle is proving every year a more useful work. During the year over 35,000 trees were distributed gratis, more than half of which were forest trees made over to Ránikhet Cantonment. During the last year nearly 9,000

fruit trees were distributed to Kumaun villages from the Ráníkhet nursery. In the Oudh Circle the plantations are almost entirely of sissu; and have not done much, except in Gorakhpur. Artificial plantations in the School Circle are undertaken only in closed forests protected against fire.

12. *Cutting of creepers.*—There is nothing specially calling for notice under this head. In the Oudh Circle some of the creepers are beginning to have a certain commercial value.

13. *Experiments and exotic trees.*—As already noticed, no very definite result has attended the observations made of the growth of trees, but the records that are being kept should in a few years afford data which should render generalisation on the subject possible. The attempts to cultivate species of the *eucalyptus* in the hill division have not succeeded, though it has done better at Dudua in the Oudh Circle.

14. *Communications and buildings.*—The expenditure under this head in each circle is given below :—

Circle.	Roads and bridges	Buildings	Other works	Total.
	Rs	Rs	Rs	Rs
Central	30,046	10 352	184	40,582
Oudh	13,092	9,009	1,343	23,444
School	9,098	10,289	1,817	21,204
Total .	* 52,236	29,650	3,344	85,230
Total, 1882-83 ...	57,152	45,514	3,516	1 06,182

The expenditure was considerably less than in the previous year. Under both roads and buildings about three-fourths of the outlay was on new projects. Two hundred and twenty miles of new communications were opened.

The length of the roads and paths maintained or constructed by the Department during the year was 1,422 miles in the Central Circle, 876 in the Oudh Circle, and 671 in the School Circle; while the buildings that are kept up for the use of the staff of the Department are returned as 67 in the Central Circle, 54 in the Oudh Circle, and 156 in the School Circle. The large number in this last circle is probably owing to the adoption of a different method of classification. In the Oudh Circle buildings for the use of subordinates are apparently not included. The Conservator of the Oudh Circle now considers the system of rest-houses in his forests to be complete, except in Gonda and Gorakhpur. The construction of the Deota sledge-road cost Rs. 2,216 during the year, and the Conservator entertains no doubt that it will prove a success. The results of the experiment are awaited with interest.

15. *Yield and working.*—Summaries have been attached to the reports showing, in the form prescribed by the Local Government, the number of trees felled and the quantity and estimated value of the produce removed from the forests. An abstract of these is given below.—

Abstract of trees felled and their contents.

Circle.	Selection fellings.		Thinnings.		Clearances		Total.	
	Number of trees	Cubic feet	Number of trees.	Cubic feet	Number of trees	Cubic feet	Number of trees	Cubic feet
Central ..	58,580	592,360	397	4,119	7,765	66,928	66,742	663,407
Oudh ...	43,886	1,647,746	251,505	268,112	1,094,964	836,551	1,390,355	2,752,409
School ...	14,659	1,509,851	5,225	132,727	..		19,884	1,642 578
Total ...	117,125	3,749,957	257,127	404,958	1,102,729	903,479	1,476,981	5,058,394
Total, 1882-83,	83,099	2,417,593	141,436	217,992	1,169,523	1,007,712	1,394,058	3,643,297
+ −	+34,026	+1,332,364	+115,691	+186,966	−66,794	−104,233	+82,923	+1,415,097

Yield in produce and estimated value.

Produce	Central Circle		Oudh Circle.		School Circle.		Total value	
							1883-84	1882-83.
	Quantity	Value Rs	Quantity	Value Rs	Quantity	Value Rs	Rs	Rs
Timber cubic feet ...	719,212	3,02,821	1,647,746	5 49,249	1,650,578	1,11,916	9,63 988	777,406
Poles, number ...	101,695	31 486	1,094,964 cubic feet.	1,36,870	4,830	2 607	1,70 963	1,66 564
Saplings, number ...	3 047	1,524	268,112	33,137	30,144	1,506	36 167	17,186
Ringals, loads ..	157	20	...	...			20	21
Bamboos, scores .	1 120,145	84,600	46	58	80 469	8,635	93,293	93,293
Firewood, maunds .	513 426	47,351	98,544	32,110	327 310	35,640	1,15,307	1,50,334
Charcool .. .	2,516	1,143	36,221	3,474	1,516	925	5,542	6,042
Minor produce	...	38 347	.	49 186	..	18 555	1,06,088	84,483
Grazing dues .. .	...	17,784		36,684	...	24 847	79,265	75,516
Confiscated wood and waif timber, cubic feet	...	65	7,382	4,372	...	2,602	7,039	9,021
Total ...		5,25,141		8,45,096	...	2,07 435	15,77,672	
Total, 1882 83 ...	.	4,72,267		7,12,396	...	1,89,750	...	13,85,860

The tables given above show an increase in the number of trees felled of 82,923, and in the quantity of timber produced an increase of 1,415,097 cubic feet. In the Central Circle the large extension of extra-departmental operations led to a considerable increase in the number of trees felled by contractors as "selection fellings." The total increase for this circle was 12,600 trees and 66,000 cubic feet. In the Oudh Circle there is an increase of 64,700 in the number of trees felled and of 766,000 cubic feet in the outturn. In the return of number of trees the increase is chiefly due to increased thinnings in Gorakhpur and Pilibhít; but the main increase in outturn is found under selection fellings, and is due to the extensive sleeper operations in which this circle was engaged during the year. Besides the regular selection fellings of 2,537 sál trees, 35,548 were specially cut, and the total yield of mature sál trees was 1,308,075 cubic feet, while in 1882-83 it was only 788,958 cubic feet. In the School Circle the outturn was about one-third greater than in the previous year; but the increase is entirely in the supply of mature timber to villagers free of charge and to thinnings. The timber felled for sale was much reduced in quantity and value. The circle had a heavy stock of sleepers on hand, and this contraction of the operations in the forest was adapted to the conditions of the market. In both this circle, however, and in the Central forests, the incompleteness of the

working plans leaves the supervising authority entirely in the dark as to the propriety of the actual fellings of any particular year. In the Oudh forests the excess was entirely outside the normal and formally sanctioned cuttings in the forests. But they were fellings of timber, which under other circumstances would have been cut only as thinnings or clearances, *i. e.*, of trees which from their gnarled and stunted growth were unfit for any purpose but short sleepers and scantlings and could never have formed well-grown and valuable timber. As to the propriety, however, of an increase of 25 per cent. in the outturn of timber from the forests of the Central Circle, there is no guide in any formal forecast of the capabilities of the forests, or indeed in the explanations furnished with the report, and it seems essential that the working plans which have been so long on hand be completed without delay.

There are, indeed, many matters in which the explanations in these reports might with advantage be clearer. It has been noticed above that the increase of outturn in the School forests was almost entirely due to a very much enhanced supply of timber to villagers. The fluctuations in this supply are remarkable: in 1881-82 it was 9,141 trees of 886,000 cubic feet; in 1882-83 it was 5,111 trees, of 562,000 cubic feet; during the last year it was 11,968 trees of 1,280,000 cubic feet. The report under review records this doubling of the free grants (paragraph 67) without remark or explanation of any sort. In the previous year the grants were doubtless below the average, and it was then said that the number of trees taken varies very much with the condition of the country and the state of the crops; but it is surprising to find that the variations should be so extraordinary, when the timber is supplied free of charge, and it would be desirable to have some idea of the extent of the demands it may be necessary to meet and their bearing on the natural productiveness of the forests. When the quantity of free timber given away is seven times that available for purchase, the limits of profitable conservancy must be very nearly reached.

16. There is the same striking disproportion in the average outturn of each tree felled in the several circles that was noticed in previous years. In the Central and Oudh Circles the average cubic contents of the trees felled are somewhat below 10 cubic feet and 2 cubic feet respectively; in the School Circle they exceed 80 cubic feet. This considerable difference is in part due to the superior size of the trees felled in the latter circle. Mr. Moir, for example, found that the average outturn of accepted metre-gauge sleepers from a deodár tree was over 100, while Captain Wood reports that the largest number obtained from a *sál* tree was 80, while the average was about 10. Making every allowance, however, for the different size of the trees, it seems certain that there is some diversity of practice in regard to the timber that is entered in this return, and the Conservator of the School Circle should ascertain that the principles of classification adopted by him are the same as those that prevail in the other circles. According to the figures given at pages 23 and 24 of the Oudh Report the average contents of the trees cut under the regular working plan reached 51 cubic feet; of those felled specially for sleepers, 33 cubic feet.

17. *Departmental operations.*—The trees felled during the year by departmental agency are shown in the return below, in which the data are taken from the summary prescribed by Government :—

Circle.		No of trees	Cubic feet.
Central	1883-84	12 040	90,446
	1882 83	25,898	313,325
Oudh	1883 84	40 545	1,517,450
	1882-83	16,942	676,855
School	1883 84	1,459	184,689
	1882 83	1,898	271,709

The decrease in the Central Circle was due to the extension to the Kumaun and Ganges Division forests of the private-enterprise system originally adopted in Garhwál. Further experience has confirmed the Conservator in his preference for that system over departmental agency, and he has decided to have no departmental timber works at all in future in any of these three Divisions.

In paragraph 109 of his report Mr. Greig has given an interesting comparison of the rate of profit on timber worked under the two systems, and his conclusion is that, in the Garhwál Division, the Government has obtained a profit of 11 annas and 9 pie per cubic foot of sál exported from the forest by private enterprise as compared with 6 annas and 4 pie under the departmental system. In the Oudh Circle, on the other hand, there was a large extension of departmental operations, and Captain Wood considers that, so long as the demand for sleepers continues, the departmental method of working is the more economical. Where operations have to be carried on on an extended scale for the production of timber of a uniform size and form, the departmental system has its best chance of success, and these are the conditions under which work was prosecuted in the Oudh Circle during the year. For ordinary operations in the forest, however, experience seems to show that the private-enterprise system is at once more profitable for the Government and more convenient for the public. In the School Circle departmental works have to be maintained to some extent for tuitional purposes, and the Conservator does not declare a very decided preference for either system.

18. A summary is given below of the statement showing the disposal of produce collected by Government agency :—

Value of produce.

Circle	Sold locally	*Depôt transactions.*				
		In hand at commencement of year	Brought to depôt	Total	Removed from depôt	Balance in hand at end of year
Central ...	23 755	134 300	79,061	214 351	128 898	85,756
Oudh	5,000	337,020	1,647,354	1,984,374	1,556,267	428,107
School ...	60,732	25,928	98,435	124,363	100,245	24,118

The enormous stock in hand in the Oudh Circle is understood to be covered by contracts with the railways. The balance in the Central Circle is still very large and indicates that departmental fellings have been

somewhat in excess of the requirements of the markets during the year, but the entire depôt stock has been cleared in the Ganges and Garhwál Divisions, and the Conservator anticipates that the timber in the Kumaun depôts will be all disposed of in the current year.

19. *Removal of produce by purchasers.*—The principal items of material removed from the forests by purchasers have been shown in a convenient form in paragraph 66 of the School Circle report, following that adopted in paragraph 16 of the review of the reports for the previous year. Similar statements should be given in future for the other circles. The value of the produce so removed is given as Central Circle, Rs. 3,86,751; Oudh Circle, Rs. 205,916; School Circle, Rs. 105,243; grand total, Rs. 6,97,910. In the Oudh Circle the amount actually realised during the year was Rs. 1,71,562 or Rs. 34,354 less than the value of the produce removed. The failure to realise the revenue during the year occurred principally in the Bahraich Division, but it is understood from pages 35 and 37 of the Oudh report that the balance is due for sleepers supplied to the Bengal and North-Western Railway Company and would be presently realised.

20. *Free grants of forest produce.*—The total value of free grants of forest produce is compared below with the figures of the previous year :—

		1882-83.	1883-84.
		Rs	Rs.
Central Circle	... ...	25,623	28,532
Oudh "	... ...	63,972	67,810
School "	... ...	16,719	6,721
	Total ...	1,06,314	1,03,063

The estimate in cubic feet of the quantity of timber given free is as follows :—

		1882-83.	1883-84.
Central Circle	... ...	123,544	142,849
Oudh "	... ...	464,716	487,153
School "	... ...	585,208	1,285,690
	Total ...	1,173,468	1,915,692

There appears to be some mistake in the figures of the School Circle; if not, some explanation should have been given of the large decrease in the estimated value of the free grants accompanied by a large increase in the quantity of timber given. The deodár trees given free in the Jaunsár Division alone were estimated to be worth Rs. 5,340, and it appears to be impossible that the whole of the rest of the free grants of the year should be worth only Rs. 1,381.

The Oudh Conservator includes in his statement of forest produce given free the value of grasses and leaves made over to villagers for grazing or thatching purposes. If these materials have a definite marketable value there is no objection to their inclusion; but if the returns are based on mere hypothetical estimates of what the villagers might be made to pay, it would be as well to bring the statement into conformity with those of the other Conservators by the omission of such items. Until

this is done and the valuation in the School Circle corrected, it is impossible to make any comparison of the extent to which the forests of the several circles are subject to rights.

21. *Financial results.*—The usual statements showing the financial results of the year's working are given below.

In the following table the receipts and expenditure of the year are compared with those of the three years preceding :—

Circle.	Receipts.				Expenditure.				Surplus.			
	1880-81.	1881-82.	1882-83.	1883-84.	1880-81	1881-82.	1882-83	1883-84.	1880-81.	1881-82	1882-83.	1883-84.
	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	4,57,607	5,04,037	4,14,003	5,34,280	2,62,437	3,04,897	2,56,649	2,65,892	1,95,170	1,99,144	1,57,355	2,68,388
Oudh ...	3,81,980	3,11,146	3,84,430	8,05,538	2,17,036	2,24,508	2,98,707	4,89,214	64,944	86,638	95,723	3,16,324
School ...	2,02,642	2,50,911	2,14,970	2,71,565	2,00,101	3,80,811	2,87,669	2,86,778	2,541	—1,35,902	—48,699	—15,213
Total...	9,42,229	10,66,093	10,13,403	16,11,383	6,79,574	9,16,212	8,39,024	10,41,884	2,62,655	1,49,881	1,74,379	5,69,499

The details of the receipts under the principal heads are given below :—

Circle.	Timber and other produce removed from the forests by Government agency.		Timber and other produce removed from the forests by consumers or purchasers.		Confiscated, drift and waif wood.		Forests not managed by Government.		Miscellaneous.		Total.
	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central	1,07,655	1,37,926	2,98,892	3,86,502	634	756	109	66	6,718	9,020	4,14,003 5,34,280
Oudh ...	2,01,959	6,22,590	1,72,447	1,71,562	3,901	4,310	...	...	6,123	7,076	3,84,430 8,05,538
School ...	1,13,145	1,43,616	88,301	1,03,378	4,243	2,602	7,011	11,815	2,270	10,154	2,14,970 2,71,565
Total ...	4,22,759	9,04,132	5,59,640	6,61,442	8,778	7,668	7,120	11,881	15,106	26,260	10,13,403 16,11,383

The expenditure under its two main heads is given in the two following tables :—

Expenditure on conservancy and works.

Circle.		Timber, &c., by Government agency.	Timber, &c., by consumers and purchasers.	Confiscated, drift and waif wood.	Rent of leased forests.	Live stock, stores, &c.	Communications and buildings.	Demarcations.	Miscellaneous.	Total.
Central ...	1882-83 ...	72,559	18,810	68	4,325	8,601	46,795	26,404	1,523	1,79,085
	1883-84 ...	51,282	19,464	5	4,424	11,268	40,582	24,096	1,432	1,52,548
Oudh ...	1882-83 ...	1,34,910	8,720	359	...	8,953	31,538	19,789	1,043	2,05,302
	1883-84 ...	3,14,185	9,012	224	...	20,885	23,444	21,518	1,218	3,90,486
School ...	1882-83 ...	97,305	6,113	174	8,501	4,748	27,840	18,971	8,756	1,72,417
	1883-84 ...	1,10,917	6,067	40	8,501	6,819	21,202	23,058	*9,077	1,85,681
Total ...	1882-83 ...	3,04,774	33,653	581	12,826	22,302	1,06,182	65,164	10,392	5,56,804
	1883-84 ...	4,76,384	34,543	269	12,925	38,967	85,228	68,672	11,727	7,28,715

* Including expenditure on forests not managed by Government.

Expenditure on establishments.

Circle.	Salaries		Travelling allowance		Contingencies		Total	
	1882-83	1883-84	1882-83	1883-84	1882 83	1883 84	1882-83	1883-84
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Central ...	94,107	98,900	9,068	10,009	4,388	4,435	1,07,563	1,13,344
Oudh ...	66,743	79,732	12,196	14,321	4 466	4,675	83,405	98,728
School ...	74,660	84,980	11,503	10,219	5,089	5,808	91,252	1,01,007
Total ..	2,35,510	2,03,612	32,767	34 549	13,943	15,008	2 82,220	3,13,169

The receipts and expenditure under the three great heads—

I—Departmental timber operations,

II—Other revenue,

III—Formation, protection, and improvement of forests,

compare as follows in 1882-83 and 1883-84:—

Circle.		*Departmental timber operations*			*Other revenue*			*Formation, protection, and improvement*	Net surplus
		Receipts	Charges	Surplus	Receipts	Charges	Surplus	Charges	
Central	1882 83	1,07,654	1,33,355	—25,701	3,06,349	70,916	2,35,433	82,377	1,27 355
	1883 84 ...	1,37,926	1,13,118	24,808	3,96,354	71,258	3,25,096	81,516	2,68,388
Oudh	1882 83	2,02,863	1,59,127	43,736	1,81,567	59,414	1,22,153	70,166	95,722
	1883 84 ...	6,23,174	3,49,984	2,73,240	1,82,364	63,499	1,18,865	75,781	3,16,324
School	1882 83 ...	1,13,145	1,44,358	—31,213	1,01,825	25,569	76,256	93,742	—48,699
	1883 84	1,43,616	1,52,565	—8,949	1,27,949	28,834	99,115	1,05,379	—15,213
Total	1882 83 ...	4,23,662	4,36,840	—13,178	5,89 741	1,55,899	4 33,842	2 46,285	1,74,379
	1883-84 ...	9,04,716	6,15,617	2,89,099	7,06,667	1,63,591	5,43;076	2,62,676	5,69,499

The surplus of the year amounted to Rs. 5,69,499, as compared with Rs. 1,74,379 in 1882-83 and a still smaller sum in 1881-82. In all the circles the results of the year have been exceptionally good. In the Central Circle the surplus is larger than it has ever been since the circle was constituted. In the Oudh Circle alone the surplus was almost equal to the total profits of the entire area of the provincial forests in any previous year. In 1879-80 the gross profits of the forests reached the sum of Rs. 3,23,000. In the year under review the profit obtained by the Oudh Circle alone was Rs. 3,16,000. This was in great part due to the sale of sleepers that were cut and collected in the previous year; and in paragraph 67 Captain Wood has made an interesting examination of the actual charges and gains on his special operations for the supply of sleepers, a special and temporary demand. They led to a large increase in expenditure, but it has been abundantly recouped by the increased receipts, and Captain Wood and his officers are entitled to much credit for the exertions by which they furnished the railways with the sleepers needed. In the School Circle the normal deficit was largely reduced,

and the Lieutenant-Governor notes with satisfaction the assurance of the Conservator that his circle will in future be self-supporting.

22. In the Central Circle the Kumaun, Garhwál, and Ganges Divisions show substantial surpluses. In the Kumaun Division, where the surplus is largest (Rs. 1,61,401), the receipts have increased by about a lakh, while the expenditure has fallen. This result is partly due to the extension of the private agency system, partly to the sale of the stock of timber accumulated during the preceding year at the depôts. In the hill divisions of Naini Tal and Ránikhet the surpluses are merely nominal. The question of securing more satisfactory financial results in these divisions has been under consideration, and the amalgamation of the two divisions which has recently been carried out will effect a reduction in the working charges, while an increase in receipts may also be looked for from the enhanced rates that have been sanctioned for timber sales. In Jhánsi, Lalitpur, and Bánda, the object that should be aimed at is the reproduction of the forests without too sudden and too harsh a restriction of the privileges which the villagers have hitherto been accustomed to enjoy. It is satisfactory, however, to observe that each division has secured a fair surplus.

23. In the Oudh Circle, while all the divisions show an improvement in receipts, the principal increase is that of nearly four lakhs in the Kheri Division, due to the sleeper operations of the year and that preceding it. The extension of railway operations in the direction of the Oudh forests afforded a market not only for sleepers but for timber of other descriptions required in the construction of stations and for similar purposes; and the opening out by railways of Oudh and the north of the Benares Division should have a permanently beneficial effect on the financial position of these forests.

In the Pilibhít Division, the only one in this circle in which there was a deficit, the receipts were Rs. 9,618 and the expenditure Rs. 21,036. The causes of the unproductiveness of this division have been noticed in previous reports; and the results during 1883-84 show an improvement over those of the year preceding. The system under which the forests of this division should in future be conducted is about to receive the Lieutenant-Governor's special examination and orders.

24. The deficit in the School Circle is considerably less than in either of the two years immediately preceding. The departmental timber operations in this circle have not been very successful, and in each year from 1881-82 there has been a deficit under this head. These deficits are said to be due to the Raiengarh sleeper transaction, a full and final account of which has been since received, and to the high rates paid to the contractor who floated timber from the forests. This contract has now been terminated, and it remains to be seen how far departmental management will be more successful. The Jaunsár and Tons Divisions still show a deficit, for which certain reasons are assigned by Mr. Fisher, amongst which is the extent of the rights to free produce enjoyed by the villagers. The question of charging a higher rate to the Commissariat for firewood is under reference.

25. The receipts, expenditure, and surplus of the year are compared in the statement below with the budget and revised estimates :—

Circle.		Receipts.	Expenditure.	Surplus.
		Rs	Rs.	Rs.
Central ...	Budget estimate	4,60,000	3,00,667	1,59,333
	Revised estimate	4,60,000	3,00,667	1,59,333
	Actuals	5,34,280	2,65,892	2,68,388
Oudh ...	Budget estimate	6,28,000	5,21,666	1,06,334
	Revised estimate	7,40,450	4,65,450	2,75,000
	Actuals	8,05,538	4,89,214	3,16,324
School ...	Budget estimate	3,42,000	3,07,667	34,333
	Revised estimate	2,67,000	3,14,000	—47,000
	Actuals	2,71,565	2,86,778	—15,213
Total ...	Budget estimate	14,30,000	11,30,000	3,00,000
	Revised estimate	14,67,450	10,80,117	3,87,333
	Actuals	16,11,383	10,41,884	5,69,499

The result has been considerably better than the estimates. In the case of a few transactions in the Oudh Circle credits were made during the year contrary to the principles laid down in letter from the Home Department, No. 258F., dated the 28th April, 1884 ; but all the Conservators have now been informed of the orders of the Government of India on this subject.

26. The liabilities of the Department and the outstandings of revenue due to it are shown below :—

Circle.	Liabilities.	Outstandings on account of contractors.	Outstandings on account of revenue.
	Rs.	Rs.	Rs.
Central		6,482	—534
Oudh	194	1,16,993	—80,920
School	...	14,384	25,133
Total	194	1,37,859	—56,321

The outstandings in the Oudh Circle include a sum of Rs. 1,08,667 that was actually paid in before the end of the year, but could not be credited in the accounts till April. In both the Oudh and Central Circles payments were made in advance on account of the following year. The outstandings in the School Circle are said to be principally due to advances for works. In the Oudh Circle some items of grazing dues are still outstanding, of which some adjustment should be made.

27. The reports of the year give an interesting account of the progress of all three circles. In some respects they are still open to improvement ; the forms, for example, in which the prescribed statements and summaries are given could in many cases, especially in the Central Circle report, be condensed with advantage. To secure uniformity in all three reports it would be as well that all statements prescribed or suggested in the Forest Code should be given at the end of the report, and that the summaries compiled under the directions of the Local Government should be attached as appendices.

28. During the year forest conservancy was unusually successful, and anticipations of continued success in the future may not unreasonably

be entertained. The extension of railway communications that is now proceeding will render the forests of all three circles more accessible, and should permanently enhance the value of their produce. The receipts of the past year have been swollen by a demand that must from its nature be a temporary one, but there seems no reason to doubt that steadily increasing revenue may be expected from the ordinary items of receipts. The School Circle has hitherto been somewhat unfortunate in its transactions, but it is hoped that in future it will be able to show a surplus instead of a deficit. An essential matter in the better management of the forests is the rapid completion of the working plans, by which their capabilities may be estimated and their administration tested; and on this there should supervene a more careful adherence to the undertakings periodically projected and approved. There was little or no friction between the officers of the Department and civil officers or villagers—a result that speaks well for the manner in which Conservators and their subordinates have carried out their duties.

29. A short account of the Forest School is given in paragraph 2 of Mr. Fisher's report. The second year's class was attended by 18 students, and the first year's by 19, during the teaching season. Encouraging reports of the students passed out of the school have been received from the Panjáb, and Mr. Fisher himself reports that the work done by the students contrasts most favourably, in regard to the cheerfulness and intelligence with which it is performed, with that of the older foresters.

30. The Lieutenant-Governor and Chief Commissioner observes with satisfaction the favourable manner in which all the Conservators report on their subordinates of the superior staff. The Conservators themselves have, on the whole, conducted the administration of their circles with skill and care, and have spared no trouble in placing on record the account of the year's results.

ORDERED that a copy of the above Resolution (with copy of report) be forwarded to the Conservators of Forests, Central, Oudh, and School Circles, for information and guidance.

Ordered also that copy (with copy of report) be forwarded to the Commissioners of the Meerut, Benares, Jhánsi, Rohilkhand, Allahabad, Kumaun, Sitapur, and Fyzabad Divisions for information.

Ordered also that copy (with copy of report) be forwarded to the Comptroller-General, Calcutta, for information.

Ordered also that copy (with copy of report) be forwarded to the Inspector-General of Forests for information.

J. WOODBURN,

Secy. to Govt., N.-W. P. and Oudh,
in the Rev. (Forests) Department.

CENTRAL CIRCLE REPORT.

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CENTRAL CIRCLE.

N.-W. PROVINCES AND OUDH.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION,
FOR THE YEAR ENDING 31st MARCH, 1885.

By G. Greig, Esq., Conservator of Forests, Central Circle.

INTRODUCTION.

DIVISIONS AND OFFICERS IN CHARGE.

Mr. Greig held the post of Conservator throughout the year.

The following table shows the Divisions and the Officers who held charge of them at the commencement and at the close of the year :—

Divisions.	*Names of Officers in charge.*	
	At commencement of the year.	At close of the year.
Naini Tal	Mr. Braidwood, Deputy Conservator, 4th grade.	Mr. Braidwood.
Ránikhet	Mr. Brereton, Deputy Conservator, 1st grade.	Ditto.
Kumaun	Mr. Wilmot, Deputy Conservator, 4th grade.	„ Wilmot.
Garhwál	Mr. Bagshawe, Deputy Conservator, 2nd grade.	„ Bagshawe.
Ganges	Major Campbell, Deputy Conservator, 3rd grade.	„ Brereton.
Jhánsi	Deputy Commissioner	Deputy Commissioner.
Lalitpur	Colonel Liston, Deputy Commissioner,	Colonel Liston.
Bánda	Mr. Smith, Collector	Mr. Smith.

Divisional changes during the year.

2. Mr. Brereton held charge of the Ránikhet Division from the 1st April to the 13th November, 1884. On the latter date Mr. Braidwood took charge of it in addition to his other duties, and on the 11th December, 1884, it was amalgamated with the Naini Tal Division by order of the Local Government.

The Garhwál Division was held by Mr. Bagshawe for the whole year except the months of January and February, when he was placed on special duty with the Khedda. During those two months Mr. Bryant, Assistant Conservator, 1st grade, was in charge.

Major Campbell was in charge of the Ganges Division from the 1st April to the 22nd November, 1884. He was then transferred to the Oudh Circle, and Mr. Brereton placed in charge of the division.

Short description of divisions and mode of working.

3. Such full descriptions having been given in the report for 1883-84, the information under this head is confined to such changes as have taken place during the year.

4. The only important change was the amalgamation of the Ránikhet Division with the Naini Tal Division on the 11th December, 1884. Now that boundaries are

fixed and work is done systematically, there is no need to have a separate officer at Ránikhet. With an efficient subordinate staff the Naini Tal Officer should have no difficulty in controlling the work there, and he ought always to be able to find time to visit the Ránikhet forests six or eight times during the year.

5. **Kumaun Division**.—As contemplated in paragraph 4 of last year's report, the whole of the timber works were conducted by private enterprise. There were no deparmental timber works of any description.

6. **Ganges Division**.—There was no departmental sawing either in this Division or in Garhwál. The Executive Engineer of the Northern Division of the Ganges Canal indented for poles as usual, but for some unexplained reason eventually bought his annual supply from the Dehra Dún forests and took none from the Ganges Division. A consignment of 396 cubic feet of boxwood was cut in the leased forests and sent to England. The lease of the Tiri Garhwál forests expired on the 31st March, 1885, and was not renewed.

7. It is satisfactory to be able to state that the whole of the forests between the rivers Sarda and Ganges (comprising the three divisions of Kumaun, Garhwál, and Ganges) are now worked by private enterprise; there are no departmental timber works of any description. The system was first started on a very small scale in the Garhwál Division in 1880-81, and it has been extended very gradually so as not to disturb the market. In my opinion there is no system which so thoroughly tests the limits of demand as this, for the trees which may be felled during the year are marked beforehand, and the merchants come into the forests with their gangs of sawyers, &c., knowing what trees are available, unrestricted as to the kind and size of scantlings they wish to prepare, and finding good roads for the export of their timber ready made for their use. Hitherto the demand has been less than the supply, and therefore it is fair to assume that the districts in the neighbourhood of the forests are supplied with timber to the extent of their wants.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

8. The following abstracts show the area of the "reserved," "protected," and other Government forests and the changes during the year, full details being given in Form No. 49:—

Reserved Forests.

Divisions.	Area on 1st April, 1884.	Added during the year.	Excluded during the year.	Area on 31st March, 1885.
	Square miles.	Square miles	Square miles.	Square miles.
Ránikhet	7	...	...	
Kumaun	636	...	...	636
Garhwál	444	...	...	444
Ganges	204	*3	...	207
Jhánsi	37	...	†11 acres	37
Lalitpur	‡142	...	§875 acres	140
Total ...	1,470	3	1	1,471

* The island of Nagarawala, area 1,740 acres, transferred from the School Circle last year, but not entered.

† 11 acres in Bhagwantpura taken up for Jhánsi-Manikpur State Railway, the compensation for which was Rs. 59-10-5.

‡ Shown by mistake as 146 square miles in last year's report, the Deputy Commissioner having added the 4 square miles of "protected" forests to the 142 square miles of "reserved."

§ 875 acres, the whole of the Dongra reserved forest restored to the Obaridar of Dongra by G. O. No. 1757, dated 2nd August, 1882.

Protected Forests.

Divisions.	Area on 1st April, 1884.	Added during the year.	Excluded during the year.	Area on 31st March, 1885.
	Square miles.	Square miles.	Square miles.	Square miles.
Naini Tal	36	...	...	36
Ránikhet	59	...	A. r. p.*	59
Lalitpúr	4	...	1 2 24	4
Total ...	99	...	1 2 24	99

With the exception of the Naini Tal Division all the areas given in the two above tables are open to correction.

9. The Bánda forests have not yet been brought under the operation of the Forest Act. The following table shows the distribution of them :—

How held.	Area on 1st April, 1884.	Added during the year.	Excluded during the year.	Area on 31st March, 1885.
	Square miles.	Square miles.	Square miles.	Square miles.
Acquired inside forest line	84	...	...	84
Acquired outside forest line ...	1	...	...	1
Under Government control 45 per cent. profits to owners	33	...	...	33
Total ...	118	...	...	118

2.—Boundaries.

10. **Naini Tal Division.**—The boundary pillars were all repaired and numbered, with the exception of No. 4, which was swept away in 1880, and has not been re-built, because it would be liable to be again carried away by floods. All the pillars which demarcate village lands were also repaired where required. The repair of pillars cost Rs. 13-2-0, and the numbering cost Rs. 12-4-0.

11. **Ranikhet Division.**—In the "reserved" forest 116 compartment number boards were put up at a cost of Rs. 10. The boundaries of this forest are in good order.

In the "protected" forests Rs. 4-3-6 was spent in repairing nine boundary pillars and 21 pillars which demarcate village lands; Rs. 22-13-6 was spent in numbering 259 boundary pillars; and Rs. 13-6-6 was spent in blazing and painting trees to show the boundaries between pillars.

12. **Kumaun Division.**—Boundary pillar No. 10 was removed to the junction of the "Kichri" nadi and the high bank, thus giving to the "Kiári" village about two acres of land which had been erroneously included in "reserved" forest.

Repairing boundary pillars cost Rs. 31, and Rs. 46 were spent in clearing a 50 feet line round four miles and 50 chains of the unprotected-from-fire portion of the "Garhibulchand" forest.

13. **Garhwal Division.**—The boundaries as now demarcated on the ground and shown in the maps have been passed as correct by the District Officer. During the year the pillars which demarcate "Jirna" and "Dharon" villages were numbered, and now the demarcation of the division is completed. The lengths of the three kinds of boundaries, *viz.*, outer, open to rights, and village lands, will be supplied by the Forest Survey Department shortly.

* One acre two roods twenty-four poles of the Pawa forest made over to a Jain Temple, by G. O. No. $\frac{118}{270\text{-}2}$, dated 25th February, 1885.

14. **Ganges Division.**—Another year has passed and still the demarcation of the forest of this division is not finished. The demarcation of the Chandi forest is being done under the orders of the Collector of the Bijnor district, and the Deputy Conservater reports that 186 pillars had been erected during the year, and that the work was still in progress.

As regards the forests in the Garhwál district, which form the principal portion of the division, it appears that the boundaries have all been visited by officers of the Forest Department, who have prepared a memo. and marked the sites of pillars on the Forest Survey Map, but that there are a few slight alterations of boundary which require the sanction of the District Officer, and that the Extra Assistant Commissioner could not be spared to visit these localities until the latter end of March. The Deputy Conservator writes:—"I then went over some boundary questions with him, but subsequently it was found too late to get masons to work in these inaccessible hills, and the balance of pillars will stand over till next season."

Up to the 31st March 38 pillars were built "where there was no possibility of a disputed position," and 13 more have been erected since the close of the year. Existing pillars were kept in repair.

15. **Jhansi Division.**—Boundaries properly demarcated. Rs. 99-8-0 spent on repair of pillars during the year.

16. **Lalitpur Division.**—Boundaries demarcated by stone pillars which are in good order.

17. **Banda Division.**—Boundaries properly demarcated. Rs. 4 spent on the repair of two pillars.

18. Demarcation work is now complete in all the forests of this circle except the Ganges Division, and the little left undone there at the close of the year ought certainly to be finished early next working season. It will now be the duty of Divisional Officers to see that all pillars, with their serial numbers, are correctly entered on their maps, and officers in charge of ranges should be held strictly responsible that pillars are kept in proper repair.

CHAPTER II.

SURVEYS, WORKING PLANS, AND ANNUAL PLANS OF OPERATIONS.

19. **Naini Tal Division.**—Another year has passed and still no working plan has been submitted, though it is *three years* since the valuation survey was completed.

20. Annual plan of operations for 1884-85, with notes showing how far it was carried out—

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
I.—Area and boundaries.	
Boundary pillars.—The forest boundary pillars to be numbered; village pillars to be kept in repair.	Squares of tun-wood were let into spaces left for that purpose, the numbers being cut three inches high and half inch deep.
	The village pillars were all repaired.
II.—Works.	
Timber operations.—20,000 cubic feet of timber to be sawn, for which probably 500 trees will be felled and logged.	Ten cubic feet ash-wood sawn, one ash tree felled and sold locally.
	19,734 cubic feet chir-wood sawn; 564 chir trees felled and logged.
	19,883 cubic feet chir was carried to depôt; this includes part of last year's sawn wood.
Fuel.—12,000 maunds of chir fuel from Hinan refuse from sawing operations.	17,534 maunds refuse from sawing operations were cut in Hinan.

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
5,000 maunds chir partly from fallen and partly from crooked and rotten trees from Shamaila, Kaplari, &c.	It was thought best to clear away the refuse from sawing, even though the carriage was more expensive, and therefore none was cut in Shamaila, &c.
8,500 maunds hard wood fuel from standing trees, mostly from China clearings for plantation work.	119 maunds oak were cut from fallen wood, only 4,574 maunds were cut in China, *viz.*:— 150 oak trees. 19 Rhododendron. 11 Ayar. Hollow trees on clearings for plantation work. The thin branches were left for Jhampanies to clear away, hence the small number of cubic feet per tree. 3,635 maunds being obtainable from cantonments from fallen and dry trees; the full amount was not cut from China.
	The amount of Commissariat indent was 25,500; amount supplied 25,862.
Charcoal.—500 maunds chir from Hinan and Padli forests from fallen wood. 1,089 maunds Bhábar charcoal from clearings for cultivation from below Haldwani.	Owing to oak charcoal being brought into the settlement from forests under the District authorities, the departmental charcoal sales were so small that the depôt was closed from 31st December, 1884. 90 maunds of chir charcoal was made and brought to depôt from Hinan. 1,089 maunds Bhábar charcoal was brought to depôt.
Roads.—Existing roads to be kept in repair. The Jhábar road to be finished and paid for.	Done Done } See account of road work.
Buildings.—Existing buildings to be kept in repair.	Done.
Two chaukies to be built 10 × 8.	This could not be done.
Plantations.—Weeding, hoeing, &c., planting as much as possible.	Done. See detailed list of plantation work.
Fire conservancy.—Protecting as usual.	Being done.

21. **Ranikhet Division.**—A few more map-sheets have been received, but the number is not yet complete. No working plan has been submitted yet, though the valuation of the most important forests was done in 1881.

22. Annual plan of operations for 1884-85, with notes showing how far it was carried out :—

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
Boundary lines.—To be marked in the protected forests where not cleared by trees (on spurs, ridges, and round fields) being blazed and painted white.	Done.
Fences.—Completing the fences of the reserved forest, with the exception of ravines, with wire fencing.	Done.
All existing fences to be kept in repair.	Done.
Pillars.—To be kept in repair, and the number boards replaced where wanted.	Done.
Roads.—All necessary repairs will be made.	Done.
The road from Dalmoti to Ghingáru khal *viâ* Khairali to be completed.	Funds not available. It was commenced last year and a portion done. This is paid for in 1884-85.
Make a bridle road from Baina to Rinchin if funds are available. It would be a short cut from Ránikhet for inspection of compartments 4, 5, and 7 of the Seoni forest.	Funds not available.
Buildings.—All necessary repairs to be executed.	Done.

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
Fire Protection.—Same as during the present year.	Done, and some additional areas included as shown in the Fire Conservancy Report.
Timber—Will be supplied from the Seoni forests on indent.	
Also to villagers free according to requirements.	Done from various forests
Fuel—98,500 maunds of fuel will be required by the Commissariat from 1st October, 1884, to 30th September, 1885. Of this—	The Commissariat Department reduced their indent and only took 72,515 maunds, which was supplied as follows —
24,000 maunds from reserve	27,062.
50,000 " " Seoni	28,724.
9,000 " " Kathallekh	4,329.
*15,500 " " protected forests round Ranikhet.	*20,400. The excess is due to more dead wood having been found than was anticipated, and of course it was desirable to utilize that before cutting green wood.
* This will be all dead wood.	Was so.
Grass—In reserved forest grass will be sold by auction.	Sold for Rs. 475.
The system of passes has been found to be open to objection, and is very liable to be abused.	Only 48 passes were issued.
Nursery—Terracing and clearing the land at the bottom of the nursery, with a view to planting peach and apple trees.	Done.
Forest planting.—Sowing all bare places with such chir seed as may be procurable.	No seed was procurable.
Planting horse-chestnuts and walnuts at Jakhdeo, and planting chir, cypress, and willows at Dalmoti and Koirali.	*Planted at Dalmoti.*—P. Excelsa ... 7,054 Cypress ... ... 3,844 Alder ... ... 988 Willow ... ... 636 Total ... 12,502 *Ditto at Koirali*—P. Excelsa ... ... 1,346 Cypress ... ... 3,482 Ash ... ... 60 Total ... 4,888 The horse-chestnut trees, which were intended for Jakhdeo, were given to cantonments by mistake. The ground will be planted up next winter

23. **Kumaun Division.**—Two map-sheets were received during the year; there are still nine sheets wanting to complete the division.

A series of maps and tracings, showing the compartments in the Nandhour valley forest, were received from the Forest Survey Office, and the outturn by compartments has been prepared. A useful set of maps has been prepared by Mr. Blanchfield, Sub-Assistant Conservator, to show the fire-conservancy operations in western Kumaun.

The working-plan branch has not yet submitted any plans.

24. Annual plan of operations for 1884-85, with notes showing how far it was carried out :—

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
I.—Area and boundaries.	
The boundary work will consist in keeping up all existing pillars and other marks.	Done at a cost of Rs. 124
II.—PLANTATION AND IMPROVEMENT.	
(a) *Fire protection.*	
The area under fire protection will not be increased. The total length of fire lines in western Kumaun will be still further reduced.	Reduced by 32 miles 50 chains.
In eastern Kumaun grass will be cut in a 100 foot line between Bhaisa Dunga and the Hatgád Sot, and improvements will be made in the method of burning grassy plains in the interior of the Jaunia Sál forests.	Done at a cost of Rs 413, including girdling of trees in the line. A line was cut round the chaurs, and they were successfully burnt.

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
Owing to difficulty experienced in getting fire-watchers for Jaunla Sal and other unhealthy places: men on temporary establishments will be employed as fire watchers, they will be changed every two months.	On trial it was found that this could not be carried out without upsetting the kham tahsil arrangements.
(b) Sowings and plantings	
The plantations at Rampur and Chopra will be kept up, and an additional five acres planted out at the latter place.	This was done.
(c) Export roads.	
Existing roads and bridle paths will be kept in repair, and the necessary paths for bamboo export made in eastern Kumaun	Done
The road from Durgadehat to Barsoti will be opened for cart traffic, and	Done at a cost of Rs 1,909.
the road from Chorgalia to Thanakpur improved and embanked	Ditto ditto Rs. 1,771.
The work in the lower chauki road will also be carried on.	Completed at a cost of Rs 1,254.
(d) Buildings.	
Existing permanent buildings will be kept in repair	Done.
Grass huts on solitary peaks will be abandoned.	Ditto
Two new third-class huts will be commenced at Bijrani and Jaunla Sál.	Bijrani finished, Jaunla Sal completed in April.
Two new kham tahsil chaukis will be erected at Garapu and Jalaban.	Both completed.
(e) Creeper-cutting	
Creeper-cutting will be carried out in two compartments of west Kotah and also in the Chorgalia closed forest.	Done at a cost of Rs 221. Ditto ditto Rs. 32.
(f) Sample plots	
The annual measurements will, as usual, be made.	Herewith submitted
(g) Other works.	
The Patrampur and Phaton wells will be completed, and one made in Jaunla Sál.	Done; and the Jaunla Sál well in course of construction
III —Yield and working.	
(*h*) There will be no departmental fellings	There were none.
No new compartments will be opened in western Kumaun, but at least 50,000 cubic feet of Sál timber will be offered to purchasers in old compartments where it is most desirable to effect a clearance of old standards.	It was found necessary to open one new compartment in western Kumaun, 5,045 cubic feet of timber was exported from that, and 50,486 cubic feet of Sal from nine old compartments
In eastern Kumaun 1,500 first-class trees will be felled on the left bank of the Nandhour river between Bhainsa Dunga and the Gaja Sot;	Only 819 trees were felled as few purchasers came.
these trees should yield at least 70,000 cubic feet of timber, or they will be exported in the log and in patties; no scantling will be sawn.	The export amounted to only 28,655 cubic feet.
200 Sál trees will be given in Chakhata to the Nawab of Rampur.	Done.
No khair will be cut in western Kumaun, but cutting will be allowed east of Haldwani where green Haldu will also be marked for applicants above the Haldwani-Thanakpur road.	Done.
	612 Haldu and 1,125 Dhauri trees were felled by exporters.
The sawing of dry sál on hill side places inaccessible to carts will be permitted in eastern Kumaun	24,870 cubic feet of dry Sal was exported in scantling in eastern Kumaun.

25. **Garhwál Division.**—No map-sheets were received during the year. The six sheets reported in last year's report as "wanting to complete the division" are still wanting.

26. Annual plan of operations for 1884-85 with notes showing how far it was carried out.

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
1.—Area and boundaries.	
1 (a) On receipt of map-sheets have blocks of stone with cut numerals let into the forest boundary pillars at Jhirna and Dharon.	1 (a) Completed.
(b) The northern boundary inspection path will be taken in hand.	(b) Deferred, in order to allow of some other inspection paths, down which forest produce can also be brought, being first made.
PROTECTION AND IMPROVEMENT.	
2.—Under this head work as follows :—	
Continued protection will be attempted in the area dealt with in 1883-84.	2 (a) Carried out.
(b) The fire lines in the north-west Patli Dún will be realigned in some places where the original lines are faulty.	(b) Carried out.
I.—Simal Khalia to Taulia.	
II.—The fire line path on north of closed block and some new lines laid out in Adnala, Gonjera, and Phulai blocks where they are urgently needed.	
(c) The improvement of the Rehar fire lines will be continued.	(c) Carried out.
3 (a) Creeper-cutting in Gonjera block north-west Patli Dún will be completed, and,	3 (a) Carried out.
(b) Creeper-cutting in the Laljhil block of Rehar be commenced.	(b) Carried out.
4.—The following new lines of road and improvements of existing lines will be taken in hand :—	
(a) Mandalti road new line for carts eight miles long.	(a) Made.
(b) New export road for carts in Gonjera block, north Patli Dún about 3 miles.	(b) Made.
(c) Six feet roads for export of timber-cart road gradients in Haldgadi, Adnala, and Phulai blocks, north-west Patli Dún.	(c) Made as noted save in Phulai where the cart road gradient had to be given up on the score of expense and a steeper gradient adopted.
(d) Ordinary repairs and general improvements to all lines of road	(d) Carried out.
5.—A pucka well will be made at the site selected at Morghati on the sub-montane road.	5. In course of construction, water having been found at 47 feet and the cylinder sunk 10 feet below that level.
6.—The following buildings will be put in hand :—	
(a) Servants' quarters at Dhikala.	(a) Erected.
(b) Third-class rest-houses at Kalagarh and Amangarh.	(b) Ditto.
(c) Pucka revenue depôt building at Saneh.	(c) As the changes in area of the Ganges and Garhwál divisions were imminent the permanent depôt building was erected at Jhirna instead of Saneh.
7. Selection fellings in the north Patli Dún working circle will be continued as follows :—	
(a) Green Sál in division II, compartments 7 and and 8, and clearing up compartments 4 and 5. Sein in division II, compartments 5, 6, 7, and 8.	7 (a) Carried out.
(b) " " in the Kotri Dún above Dhimki.	(b) Carried out.
(c) Cutting of dry sál, &c., will continue as in former years through out the division.	(c) Carried out.
(d) Bamboo cutting will be carried on throughout the division under the following limitations :—	
I. At least four uninjured growing shoots to be left uncut in each clump in all forests.	The rule was enforced.

27. **Ganges Division.**—The forest survey continued the survey during the year, and, it is believed, completed it.

The working-plan branch under Mr. Hearle completed the valuation of the Bhábar forests.

28. Annual plan of operations for 1884-85, with notes showing how far it was carried out :—

SANCTIONED PLAN	HOW FAR CARRIED OUT.
The demarcation of Chandi Range will be completed.	Out of the 277 pillars which were to be made by the Collector of Bijnor in the Chandi Range 136 have been made up to 31st March, 1885, at a cost of Rs. 359-2-8. The remainder 141 pillars will be finished by the end of June, 1885.
Northern hill boundary pillars to be rebuilt and a few others repaired.	51 Northern hill boundary pillars were rebuilt and 10 pillars repaired.
One new road from Chameria to Kathul will be made for inspection of forests.	Done at a cost of Rs. 405-7-0.
It is suggested to change the line of road from Kunaon Basodhara.	The road was inspected by the Deputy Conservator, and as he is of opinion that the present line answers the purpose it was not changed.
All the existing roads will be repaired.	Done at a cost of Rs. 2,100-4-9.
A pucka chauki will be finished at Laldhang.	Done. Rs. 369-11-6 charged during 1884-85, the balance in 1885-86.
An office building will be built in the Bhábar forests, and all the existing buildings in the division will be repaired.	This was postponed on account of the likelihood of the division being extended eastward (see note below) in which case a fresh site will be selected. The existing buildings repaired at a cost of Rs. 636-9-2.
A pucka well will be made at Chila.	Towards the commencement of the working season it was learnt that there was a strong probability of the leased forests being given up at the end of the year, and that the Ganges Division would be extended eastwards, and as this would involve the necessity of the Forest Officer being more in the eastern portion of his division and less at Chila it was decided not to make a well at Chila. Since the close of the year the leased forests have been given up and the division has been extended eastwards; and as water can be carried from the Ganges for the use of the officer and his establishment during the comparatively short periods they will now have to spend at Chila, there was no need to go to the expense of building a well.
The area of forests protected from fire will be extended near the Ganges.	The reason why this project was not carried out is also due to the projected extension of the division eastwards. The Kotri Dún now (*i.e.*, since the close of the year) belongs to the Ganges division, and as the forests there are far superior to those near the Ganges, a large block of Sál forest in the Kotri Dún will be placed under fire conservancy instead of extending the protected area near the Ganges.
It is proposed to give up the fire conservancy of the Papdanda forest.	Given up.
Some of the khám chauki huts will be made more substantial than in former years so as to last for two or three years.	Mr. Brereton writes :—"I did not do this, as I do not at all agree with Major Campbell's proposals. A chappar that is left uninhabited during the rains becomes dilapidated and dirty. Clean annual chappars are much better in such places as pucka chaukis are not built, as there is always the possible danger of fire; the renewals would also cost less." The matter is not of much importance, and probably Mr. Brereton's view is the best.
Boxwood will be exported to England.	396 cubic feet of boxwood sent to England.

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
Some 200 Seln and 400 Kukat trees have been marked in the Gone range for sawing by merchants and export through kham.	132 Seln and 153 Kukat trees were sawn up to 31st March, 1885, and the rest will come in 1885-86.
Some Sisham trees on blanks which are likely to fall down will be sold by auction or otherwise.	Done.
About 13,000 Kukat ballas, ballis, and tors will be cut and delivered to the Canal Department if the Canal Department indent for them, or perhaps a better plan will be to allow the tors and ballas, &c., to be cut and exported on the kham chowkies by exporters.	Mr. Broreton writes :—"An indent was sent in from the Canal Department for tors and ballas a day or two after I took charge. It appears Major Campbell made some proposals to the Executive Engineer, Ganges Canal, which would have the effect of doing away with the loss which previously fell on the Department from preparation, carriage, and loss by floating of wood subsequently rejected, and which it was stated that the Executive Engineer had verbally accepted. I offered the wood on the same terms, but the Executive Engineer did not care to comply, and made his arrangements to get the wood from Dehra Dún side, mostly as I believe from the Government forests of the Dun"
The ordinary export of kham tahsil produce will be conducted as usual.	Done. Rs. 39,277-9-7 worth of timber, firewood, &c., and minor produce exported through the kham chowkies.
Export of bamboos to be allowed from the forests which have been closed for the last three years.	Done.
The examination of the Bhábar forests will again be continued by the Working-plan Branch.	Done. Finished at a cost of Rs 1,443 besides the pay and travelling allowance of gazetted officer in charge.

29. *Jhansi Division.*—Annual plan of operations for 1884-85, with notes showing how far it was carried out ;—

SANCTIONED PLAN.	HOW FAR CARRIED OUT.
(*a*) Keep the boundary pillars in proper repair.	Done, at a cost of Rs. 99-8-0.
(*b*) Put the road from Babina to Dakwa and Chakurpur in proper repair.	Done, at a cost of Rs. 73-11-0.
(*c*) Get a few necessary articles of furniture for the Dakwa inspection chowki.	Done, at a cost of Rs. 66-15-0.
(*d*) Repair of Dakwa chowki.	Done, at a cost of Rs. 63-0-0.
(*e*) Improve the Kachueo chowki.	Done, at a cost of Rs 291-0-0.
(*f*) Raise the Keolar nadi band in the Gaunrpura forest.	Done, at a cost of Rs. 44-8-0, but the result was not successful.
(*g*) Fire lines to be maintained in the Dakwa and Sakwa forests as usual.	Done, at a cost of Rs. 50-0-0.
(*h*) As Shisham appears to thrive better than any other tree in the Jhánsi soil, it is proposed to plant Shisham only. Sowing broadcast has not succeeded, therefore only selected seeds will be sown in selected places.	2,190 shisham seedlings were planted in the Dakwa, Magorpur, Ganupura, and Bhasneo forests. A little shisham seed was sown, but it proved a failure.
(*i*) The Dhakwan well to be repaired and other wells to be cleaned.	Done, at a cost of Rs 89-15-7. Bhasneo well cleaned at a cost of Rs. 10-0-0.
(*j*) About 600 ballis will be sent to the depôts for sale, and other forest produce will be supplied according to the demand.	The demand was less than was expected. Only 432 ballis were cut by Government agency. There was an increase in sale of bamboos, kuriahs, and other minor produce, but a decrease in kiras, charcoal, and firewood; the decrease in the two latter being due to the stoppage of the Railway works.
(*k*) The revenue from grass and grazing will probably be more this year than last, as endeavours are being made to control the practice of free grazing.	There was an increase of Rs. 531-12 0 under the head "grazing and fodder grass."
(*l*) One pair of bullocks will be purchased to take the place of a pair which have become unserviceable.	Purchased at a cost of Rs. 48-8-0, the unserviceable pair having been sold for Rs. 14-0-0.

30. *Lalitpur Division.*—Annual plan of operations for 1884-85, with notes showing how far it was carried out :—

Sanctioned plan.	How far carried out.
(a) Cut bamboos of all kinds ... 10,87,000 ,, teak ballis ... ... 100 ,, miscellaneous ballis ... 20,850 ,, kurias 3,80,000	Rs. 909, sale proceeds of timber and kurias, and Rs. 2,973, sale proceeds of bamboos, were realized. 8,25,818 bamboos, 273,303 kurias, 105 teak, and 8,603 miscellaneous poles were cut by the department and contractors, besides 1,162 cart-loads of dry firewood. The bamboos, &c., were cut during the year according to the local demands, hence the difference between the proposed plan and the work actually executed.
(b) Sowing and planting.	Out of Rs. 100 put down in the budget, Rs. 50 has been spent for sowing babul seed in the Kuchnoda forest.
(c) Protect from fire the Deogarh and Garowli forests.	Rs. 100 spent as usual in this work.
(d) Repair village tracks passing through forests.	Rs. 67-10-3 spent during the year for repairing roads from Thungunah to Bungawah, *vid* Papro, 12 miles in length.
(e) Build three forest guards' chawkies and usual repairs.	Three chowkies built at Rs. 101, Rs. 230 spent to put the two inspection bungalows into thorough repair, Rs. 14 for completing the Lalitpur depôt, and Rs. 5 on account of ordinary repairs of other chawkies.

31. **Bánda Division.**—Annual plan of operations for 1884-85, with notes showing how far it was carried out :—

Sanctioned plan.	How far carried out.
(a) Stone pillars to be erected on the outer boundary of forests where necessary.	None found necessary.
(b) Fire lines to be cleared.	Done partially.
(c) Repair roads.	Done.
(d) Repair buildings.	Done.
(e) Repair wells.	Done.
(f) Timber operations as usual.	Done.
(g) The right to quarry lime stone and burn it with imported wood will be leased on payment of the usual royalty.	Done.
(h) The forests wil be closed against grazing as far as possible.	Grazing in the Kulaha block was prohibited.

32. With reference to the latter portion of paragraph 5 of the Government of the North-Western Provinces and Oudh Resolution No. $\frac{504F.}{233-7}$, dated 20th December, 1884, it is statisfactory to be able to draw attention to the decided improvement in the ere in which the annual plans of operations have been carried out this year. The Ganges Division is the only one in which there is any great discrepancy, and satisfactory explanations are given for not having carried out certain projects.

CHAPTER III.

PROTECTION AND IMPROVEMENTS.

1.—Establishments.

33. The distribution of the superior staff has been shown in paragraph 1. The amalgamation of the Ranikhet and Naini Tal Divisions made one officer available for employment elsewhere, and consequently Major Campbell was transferred to the Oudh circle.

34. There were several important changes in the subordinate staff during the year as follows :—

(i). Owing to the amalgamation of the Naini Tal and Ránikhet Divisions on the 11th December, 1884, the establishments, both permanent and temporary, had to be revised, and the reorganization came into force on the 1st January, 1885, by order of G. O. No. $\frac{109F.}{203-14}$, dated 13th March, 1885.

(ii). The revision of the establishment of forest rangers and foresters for the Kumaun, Garhwál, and Ganges Divisions, which had been before Government for two years or more, was sanctioned with effect from the 13th November, 1884, and Mr. Blanchfield, a very deserving Ranger on the temporary establishment on a salary of Rs. 120, was brought on to the permanent establishment and promoted to Forest Ranger, 1st grade, on Rs. 150. Subsequently he was gazetted as Sub-Assistant Conservator on Rs. 150 per mensem, with effect from the 23rd December, 1884.

(iii). Two foresters and two forest guards attended the Forester's class at the Forest school. One forest ranger (probationer) joined on the 1st November, 1884, and three more have joined since the close of the year. These four ranger probationers and the four men for the Forester's class will all attend the school this year (1885).

35. Every endeavour has been made to carry out the wishes and orders of Government regarding the introduction of trained rangers and foresters, and it is hoped that the advance in that direction, as reported above, will be considered satisfactory. All four of the ranger probationers are, it is believed, promising young men. We have not had much opportunity to form an opinion of the three who joined in April, 1885, but Chinta Mani (a native of Almora), who joined on the 1st November, 1884, has worked in the forests of the Garhwál Division for a whole working season, and Mr. Bagshawe's report of him is quite satisfactory.

The three who joined in April, 1885, formed the subject of a separate report to Government. They were selected by Conservator in March; they are all bright and intelligent young men; and the officers under whom they have served, Messrs. Bagshawe and Wilmot, have reported favourably of them.

2.—General protection and breaches of the Forest Laws.

36. The following is a summary of Form No. 52, in which is given full details of all the prosecutions :—

Divisions.	Prosecutions.				Convictions.	Acquittals.	Cases pending at close of 1884-85.	How tried.
	Pending from 1883-84.	New of 1884-85.	Total for trial.	Concluded in 1884-85.				
Naini Tal ...	...	39	39	39	33	6	...	By the Divisional Officer in his magisterial capacity.
Ránikhet ...	...	27	27	27	25	2	...	22 cases tried by Cantonment Magistrate, 5 tried by Divisional Officer in his magisterial capacity.
Kumaun ...	...	1	1	1	1	...	...	By the Divisional Officer in his magisterial capacity.
Garhwál ...	...	...	...	...	...	...	...	
Ganges ...	2	1	3	2	1	1	1	By His Highness the Raja of Tiri.
	1	1	2	2	1	1	...	By the District Officer of Bijnor.
Jhánsi ...	...	10	10	10	10	...	...	By the Deputy Commissioner of the district.
Lalitpur ...	...	39	39	39	36	3	...	By the Deputy Commissioner of the district.
Total ...	3	118	121	120	107	13	1	

Including the prosecutions pending from 1883-84, but excluding those pending at the close of 1884-85, the precentage of convictions (107) to prosecutions concluded (120) is 89·16.

37. The cases shown in the above statement were tried by Magistrates, and the following table shows the number of persons whose offences were compounded under section 67 of the Forest Act:—

Divisions.	Injury to forests by fire.	Unauthorized fellings or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total cases.	Amount realized in compensation.	
						Rs. a. p.	
Naini Tal	...	33	...	...	33	81 8 0	By Divisional Officer.
Ranikhet	...	86	13	1	100	114 1 6	Ditto.
Kumaun ...	3	126	11	60	200	849 0 0	Ditto.
Garhwál ...	...	64	...	16	80	375 2 7	Ditto.
Ganges	2	19	...	4	25	184 2 8	Ditto.
Total ...	5	328	24	81	438	1,603 14 9	

In addition to the above there were a number of petty fines in the Naini Tal Division for breaches of local rules, 178 men having been fined Rs. 128-4-0.

3.—Forest Fires.

38. **Naini Tal Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	19,380	774	18,606	544
1885	19,380	80	19,300	383

In 1884, it cost 5·38 pie per acre.
In 1885, „ 3·79 „ „

Percentage of area attempted to be protected to total area of forest ... 84·49
Percentage of failures to area attempted ... ... ·41

Two fires occurred during the year by which 80 acres were burnt—

(*a*) 3½ acres in compartment 7. This fire was lighted by a torch dropped by a dâk runner on the 17th April.

(*b*) 76½ acres in compartment 10. This fire occurred about midday on the 14th June. It was lighted between the old and new Khyrua roads, and the high wind carried it across the latter and up through the promising young pine forest near Dhunikhal. It was supposed to have been lighted by Jhampanies, but no one was caught.

39. **Ranikhet Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	12,900	132	12,768	429
1885	13,743	88	13,655	258

In 1884, it cost 6·38 pie per acre.
In 1885, „ 3·60 „ „ „

Percentage of area attempted to be protected to total area of forests ... 32·21
Percentage of failures to area attempted ... ... ·64

Three fires occurred by which 88 acres were burnt—

(*a*) Ganeadoli forest, 68 acres burnt in compartments V. (closed portion) VI, VII, VIII, and IX (protected forest).

The fire was observed at daybreak on the 15th June, and must have been lighted during the night by some of the neighbouring villagers. Tam and Pathuli villages are quite close to the forest, and as several fires have occurred in this forest during the night, we feel quite sure that they have been lighted by villagers, and the Deputy Conservator has been requested to ask the Assistant Commissioner to take recognizances from the neighbouring villages in future. As the forester was retiring from putting out this fire he saw smoke near pillar No. 13 in compartment IX. Some boys told him that one "Rupdeo" of Jainti village told them that he had lighted the fire at the instigation of the villagers of Pathuli. The case was tried by the Cantonment Magistrate, and Rupdeo was sentenced to two months' imprisonment.

(*b*) Padholi forest, 18 acres burnt. This fire commenced about 3 P.M. on the 16th June. Some boys from the villages of Airar and Kania were found near the place and were taken before the Cantonment Magistaate, but there was not sufficient evidence to convict them.

(*c*) Chilianao forest, 2 acres burnt. This fire commenced about 1 P.M. on the 16th June and was supposed to have been lighted by travellers in the Dwarahat road.

40. **Kumaun Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	100,348	3,478	96,870	8,453
1885	23,698	*Nil.*	23,698	2,341

NOTE.—The 76,650 acres of fire-protected forest in Blocks I, II, and III were transferred to the Garhwal Division on the 1st April, 1885.

In 1884 it cost 16·17 pie per acre.
In 1885 „ 18·96 „

Percentage of area attempted to be protected to total area of forests 8·45. Percentage of failures to area attempted. No failures.

41. **Garhwal Division—**

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	110,692	4,446	106,246	7,847
1885	187,342	203	187,139	12,291

NOTE.—Kumaun Division, Blocks I, II, and III, area 126,604 acres, of which 76,650 acres are under fire conservancy, were handed over to the Garhwal Division on the 1st April, 1885.

In 1884, it cost 13·61 pie per acre.
In 1885 „ 12·59 „

Percentage of area attempted to be protected to total area of forests ... 45·62
Percentage of failures to area attempted ... ... ·10

Five fires occurred by which 203 acres were burnt—

(*a*) Kotah Forester's beat, 68 acres burnt. This fire commenced near the Ranikhet cart-road during the afternoon of the 7th May, and was supposed to have been lighted accidentally by travellers.

(*b*) Chilkia forester's beat, 79 acres burnt on the 3rd June.

(*c*) Ditto ditto ditto ditto 4 acres burnt on the 6th June.

(*d*) Ditto ditto ditto ditto 46 acres burnt on the 11th June.

These three fires were all close together near the village of Kameria, and were undoubtedly malicious incendiarisms. Seven residents of the Kunkhet and Tharan villages were arrested of whom three were discharged after a preliminary investigation; three were tried and acquitted for want of evidence; and one, who pleaded guilty, was convicted. The case has been sent to the District Magistrate for further investigation in the hope that he will be able to discover the reason why the villagers were so persistent in their endeavours to burn the forest. The Deputy Conservator had cause to suspect that the headman of Kunkhet was the chief instigator.

(*e*) Kotah Forester's beat, six acres burnt on the 19th June. It was supposed that this fire was caused by some one taking a bees' nest, but no arrests were made.

42. **Ganges Division.**—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	18,893	1,228	17,665	618
1885	9,500	160	9,340	543

NOTE.—The Tehri lease lapsed on the 1st April, 1885, therefore the 8,872 acres in the leased forests which were under fire-conservancy are not shown in this year's form No. 51.

In 1884, the protection of 10,021 acres of Bhábar forest cost Rs. 560 or 10·72 pie per acre.

In 1885, the protection of 9,500 acres of Bhábar forest cost Rs. 543 or 10·97 pie per acre.

Percentage of area of *Bhábar* forest attempted to be protected to total area of *Bhábar* forest ... ... 7·18

Percentage of failures to area attempted ... ... 1·68

Only one fire occurred. It was in the Kaprria forest, and 160 acres were burnt. The establishment had been burning the fire lines on the 25th of April and must have left a log burning; for, during the night, or early morning of the 26th, a spark flew across the line and set fire to the forest.

43. **Jhansi Division.**—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	2,953	*Nil*	2,953	100
1885	1,483	*Nil*	1,483	50

In 1884, it cost 6·50 pie per acre.

In 1885, „ 6·47 „

Percentage of area attempted to be protected to total area of forest 6·28.

There were no failures.

44. **Lalitpur Division**—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
	Acres.	Acres.	Acres.	Rs.
1884	1,749	*Nil.*	1,749	100
1885	1,749	*Nil.*	1,749	100

It cost the same in both years, *viz.*, 10·97 pie per acre.

Percentage of area attempted to be protected to total area of forest ... 1·89

There were no failures.

45. The following summary compares the fire-conservancy operations of the years 1884 and 1885 :—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost of the year.	Total cost to 30th June, 1885.	Percentage of area attempted to total area of the forest.	Percentage of failures to area attempted.
	Acres.	Acres.	Acres.	Rs.	Rs.		
1884	266,915	10,058	256,857	18,091	1,18,347	26·52	3·76
1885	256,895	531	256,364	15,966	1,29,313	25·57	·20

The protection of 41,152 acres of hill forests (including the Naini Tal and Ranikhet divisions and 8,872 acres of leased forest in the Gangos division) cost during 1884 Rs. 1,031, or 4·81 pie per acre. The cost of protecting 33,123 acres of the Naini Tal and Ranikhet forests (the leased forests were given up on the 1st April, 1885) during 1885 was Rs. 641, or 3·71 pie per acre.

The protection of 225,763 acres of Bhábar and plains forests cost during 1884 Rs. 17,060 or 14·50 pie per acre ; and of 223,772 acres during 1885, Rs. 15,325, or 13·14 pie per acre.

46. The following summary shows the fires which occurred this year and the two previous years :—

Year.	Maliciously lighted inside the forests.		By workmen by accident.		By villagers or travellers by accident.		By establishment when burning fire traces.		Fires which crossed the fire traces from outside forests.		Fires caused by lightning.		Total number of fires.	Total area burnt.
	Number of fires.	Area burnt.	Number of fires.	Area burnt.	Number of fires.	Area burnt.	Number of fires.	Area burnt.	Number of fires.	Area burnt.	Number of fires.	Area burnt		
		Acres.		Acres.		Acres.		Acres.		Acres.		Acres.		
1883 ...	8	2,183	3	22	4	48	10	203	6	3,556	...	...	31	6,022
1884 ...	7	1,015	...	...	4	776	5	4,061	1	10	1	4,196	18	10,058
1885 ...	5	215	...	...	5	156	1	160	...	...	...	...	11	531

Fire-conservancy has been *far more* successful this year than it has ever been before. No doubt this success was to a great extent attributable to the unusually wet winter and the heavy rain during May, but still great credit is due to the Forest Officers for the systematic manner in which fire conservancy is now managed. Accidents and incendiarisms always must happen ; the latter more especially amongst hill men who are constantly trying to pay off one another for some petty quarrel, but the above summary shows the satisfactory fact that *preventible* fires, such as those caused by the establishment when burning fire traces, and those crossing the traces from outside forests, are decreasing in number year by year.

47. With reference to the Government of India Circular No. 4F., dated the 14th April, 1885, the following table shows an estimate of the extent of the forest areas which, as a rule, escape forest fires without the adoption of special measures for their protection :—

Divisions.	Areas of Government forest which, as a rule, escape fire without special protection.	Remarks.
	Acres.	
Naini Tal ...	None ...	The whole of the division is specially protected.
Ranikhet ...	None ...	Some portions escape every year, but there is no rule. Portions which escape one year are liable to be burnt the next.
Kumaun ...		
Garhwál ...		
Ganges ...		
Jhánsi ...	21,998	Figures given by Deputy Commissioner.
Lalitpur ...	18,767	Deputy Commissioner states that no fire has been reported in this area for the last three years.
Bánda ...	Not known ...	
Total ...	40,765	

4.—Grazing and fencing.

48. **Naini Tal Division.**—Full particulars of the area open to grazing were given in paragraph 44 of last year's report, and as there has been no change there is nothing new to add.

49. **Ranikhet Division.**—There is nothing to add to what was written in paragraph 45 of last year's report regarding grazing. Rs. 1,133 was spent on fencing the reserved forest, *viz.* :—

	Rs.	a.	p.
Repairing 20 chains of thorn fence	6	9	10
485 new posts for wire fencing	61	8	6
Purchase of wire for fencing	944	5	3
Sawing 774 posts and putting up 2 miles, and 61 chains wire fencing,	120	15	0
Total ...	1,133	6	7

50. **Kumaun Division.**—There has been no change in the area open to grazing, which was given in paragraph 46 of last year's report. A very important improvement was brought about during the year though, regarding the control of the numerous cattle stations within the reserved forest. Hitherto it has been the custom for the grazing dues from these stations to be collected by the district officer, and consequently the graziers looked to *him* as their controlling authority, and took but little heed of the Forest Officer or his subordinates. Now the collection of these dues from all the cattle stations in eastern Kumaun, *except four* rests with the Forest Officer, and he is thus enabled to bind the headmen by stamped agreement to observe certain rules and regulations. This is as it should be. The Forest Officer has now a proper control of almost all the grazing within the forests under his charge. He can appoint the headmen, and can place the stations where he thinks they ought to be placed so as to fit in with his scheme of export of forest produce.

The punishments for illicit grazing amounted to Rs. 65 this year as against Rs. 94 in 1883-84, and the Divisional Officer reports :—"Generally speaking there has not been so much difficulty with the assamis, and the Bhotiyas also have been much more amenable to orders."

51. **Garhwal Division.**—There is nothing to add to the information given in paragraphs 47 and 48 for either this or the Ganges division.

52. **Jhansi Division.**—The area open to grazing was the same as last year, *viz.*, 19,167 acres. A system was introduced of granting grazing leases to zamindárs, and it has been successful. Where leases were not given the grass was cut and sold :—

	Rs.
Grazing dues amounted to	347
Rent of grass preserves	2,468
Sale of grass	293

making a total of Rs. 3,108 against Rs. 2,576 in 1883-84.

53. **Lalitpur Division.**—The figures given in paragraph 50 of last year's report are incorrect : out of a total area of 92,269 acres only 1,750 were closed to grazing.

54. **Banda Division.**—The whole area of the forest, 118 square miles, was open to grazing except the Kuluha compartment. The grass in this compartment was cut and collected by Government agency as an experiment, but as only 100 maunds were sold it was not a success.

Grazing brought in Rs. 793 against Rs. 540 in 1883-84.

5.—NATURAL REPRODUCTION.

55. In paragraphs 53 to 60 of last year's annual report a general idea was given of the state of natural reproduction in all the divisions of this circle. There is nothing to add to what is therein recorded, except that the year 1884-85 was very favourable to the growth of young trees owing to the mildness of the frosts and the abundant rainfall during the winter and spring.

6.—ARTIFICIAL REPRODUCTION.

56. **Naini Tal Division.**—The young deodar trees in the plantations on the west of China in Jabar and Kahla were all carefully pruned by Mr. Blanchfield, Sub-Assistant Conservator. The old plantation at Kahla was again added to by planting 2,050 walnut seedlings from the Ranikhet nursery. The following is a brief account of the additions made in the plantations in progress :—

West face of China.—Two hundred and fifty pinus excelsa, 825 deodar, and 1,012 walnut seedlings were brought from Ranikhet and planted. 1,114 poplar seedlings were dug up in the Kahla forest and planted, and one maund of quercus dilatata seed was sown in the pits with the poplar trees.

Maulani.—One hundred and thirty-two fruit trees were got from Ranikhet and planted near the house.

Kiladhunga.—One hundred and ten beds were planted with quercus semicarpifolia. In the Hinan pine forest, where natural reproduction was not complete, 533 beds were sown with pinus longifolia. The following is a summary of the work done during the year, the cost of which was Rs. 532 :—

Planting out 825 deodars, 250 pinus excelsa, 3,062 walnuts, 1,114 poplars, 110 oaks, and 130 fruit trees.

Sowing 1,647 beds with oak and pinus longifolia. Pruning young deodars over about 170 acres Weeding plantations and shading young trees where necessary.

57. *Ranikhet Division.*—Here follows a copy of Mr. Craw's report —

"1. The following is a list of the seeds sown during the year :—

First fruit trees	Apple	5	lbs.
	Apricot	60	"
	Plum	9½	"
	Peach	11½	"
	Pear	½	"
	Loquat	3	"
	Cherry	6½	"
Second forest trees	Horse chestnut	1,062	"
	Deodar	15	"
	Cypress	5	"
	Ghingaroo	280	"

"2. Of the fruit trees the only ones that have failed to germinate are plum and cherry, but as there is a large number of stocks raised from layers, the failure of these will not interfere with the supply of grafted plants. Fruit trees raised from

seed are only useful as stocks to graft and bud good varieties upon and not for the production of fruit, which only in very rare cases comes here to kind.

"3. The horse-chestnut seed vegetated extremely well, 1,062lbs. of seed having produced over 28,000 plants. The deodar seed was very light, was sown in February, and has not yet vegetated. The cypress was sown more recently in March, and is therefore still underground. The Ghingaroo sown in autumn germinated very well, but a number of the seedlings were killed by frost.

"4. The following trees were planted in the forests during the rains :—

At Dalmoti.—Cheel				7,034	
Cypress				3,844	
Alder				988	
Willow				636	12,502
			Rs.	a.	p.
Cost.—Digging pits			57	10	4
Planting, weeding, and watering			125	15	5
			183	9	9
At Koiroli.—Ash				60	
Cheel				1,346	
Cypress				3,482	4,888
			Rs.	a.	p.
Cost.—Digging pits			18	0	0
Planting, weeding, and watering			64	0	2
			82	0	2
Nursery charges			*1,772	13	9

"5. At Dalmoti and also at Koiroli, wherever the soil is light and shallow, a number of plants died in autumn when the rains ceased, but the others now well established are growing well. When once the ground is well covered and protected from the sun's rays plants grow very well, as is proved by old established plantations at Dalmoti of cheel, cypress, deodar, acacia, and gum.

"6. In the several old established plantations cheel, deodar, walnut, horse, and sweet chestnuts have made good progress, but at Jakhdeo and the nursery gums were a good deal broken by heavy snow.

"7. The sweet chestnuts at Jakhdeo flowered for the first time, but did not produce any fruit. They are again in flower, but as the trees are young, not much reliance can be placed on the fruit coming to maturity.

"8. The following is a list of trees distributed during the year :—

First forest trees.

To whom	Walnut.	Horse-chestnut.	Deodar.	Acacia.	Ash.	Miscellaneous.	Total.
Cantonments, Ranikhet	...	1,000	1,829	12,000	2,000	395	17,224
Forest Department, Naini Tal Division,	3,000	500	2,350	...	...	Cheel 750	6,600
Public Works Department, Military Works,	300	...	250	...	...	...	550
Villagers and house-holders ...	776	7	499	63	...	229	1,484
							25,858

* Part of these charges should have gone to Dalmoti and part to Koiroli planting. Separate account has not been kept by the Chaudhri. In future this will be done.

Second fruit trees.

To whom	Apple.	Pear.	Apricot	Plum.	Peach.	Nectarine	Cherry	Fig.	Mulberry.	Loquot.	Currant.	Quince	Sweet chestnut	Total.
Villagers and houses-holders.	3,856	1,515	1,212	157	791	20	86	204	20	46	4	15	35	7,441
Forest Department, Naini Tal Division.	50	25	30	...	28	...	80	...	...	...	...	...	...	163
Forest Department, Chakrata.	50	50	50	50	50	...	24	...	...	...	...	...	...	274
Simla Municipality ...	1,000	500	1,000	...	1,000	...	...	500	...	...	...	...	...	4,000
	4,456	2,090	2,292	207	1,869	20	140	704	20	46	4	15	35	11,878
Forest trees ...														25,858
														37,736

" 9. The revenue from the sale of fruit from all sources is as under :—

			Rs. a. p
Apples	1,542 ⅞th seers		462 10 11
Apricots	1,011 ¾	"	170 5 6
Cherries	21	"	7 14 0
Pears	17 ½	"	9 9 6
Peaches	26 ½	"	26 8 0
Plums	85 ¾	"	116 0 0
	2,705 ⅞	"	792 15 11
Less paid Messrs Morrison and Co. commission and advertising charges ...			94 10 9
Net amount realized ...			698 5 2

10. The prices at which the fruit was sold were for apples Re. 0-2 0 to Re. 1 per seer.

Apricots	0	1	0	0	6	0
Plums	1	0	0	2	0	0
Peaches	1	0	0	...		
Cherries	0	6	0	...		
Pear	1	0	0	to	30	%

" 11. Seven hundred and one seers of apples at two annas per seer. Six hundred and sixty-nine seers of apricots at one anna per seer, and twelve seers of pears at two annas per seer were sold to the soldiers at Ranikhet and Chaubattia.

" 12. The following is a list of the forest and fruit trees in the nursery :—

First forest trees.—Walnut	32,264	
Horse-chestnut	31,793	
Ash	23,740	
Deodar	15,331	
Wild pear	38,138	
Cypress	6,653	
Alder	1,178	
Cheel	1,591	
Willow	1,120	
Ghingaroo	16,500	
Miscellaneous	1,477	
		1,69,780
Second fruit trees—Apple (grafted)	4,407	
" (stock)	7,263	
Pear (grafted)	6,939	
" (stock)	5,132	
Apricot (budded)	5,420	
" (stock)	27,048	
Peach (budded)	6,194	
" (stock)	11,060	
Nectarine (budded)	43	
Plum "	500	
" (stock)	1,448	
Cherry (budded)	550	
" (stock)	1,024	

Brought forward		77,028
Loquot (enarched)		40
" (stock)		165
Currant		178
Fig		1,129
Mulberry		114
Quince		480
Sweet chestnut		304
		79,438
Forest trees		169,780
	Total	249,218

"13. No additions have been made to the orchard, but a large piece of land at the bottom of the nursery has been cleared and partly terraced with a view to planting next cold weather with dessert apples, peaches, and cherries, and for the cultivation of seedling forest and fruit trees.

"14. The older apricot and apple trees having lately shown exhaustion from over cropping have been manured, and the soil about their roots further enriched by a liberal dressing of decayed leaves from the forest. This and a judicious thinning of the fruit will early induce a more vigorous growth."

In 1883-84, 14,749 grafted fruit trees and 20,442 forest trees were distributed. During 1884-85 the numbers distributed were 11,878 fruit trees and 25,858 forest trees. But during 1883-84 there was an extraordinary demand of 5,214 fruit trees for the Simla municipal gardens. During May, 1885, I visited most of the plantations and was very pleased to see how well they were getting on, the spring growth of 1885 was remarkably good, owing, I presume, to the plentiful rainfall during the winter and spring.

The Australian acacias have rather astonished us. A great many of the plants which we thought dead or dying sent up such vigorous shoots during the summer that they have survived the autumn and winter and now promise to become fine trees.

58. **Kamaun Division.**—The garden at Ramnagar and the plantations at Rampur, Loti, and Chopra were protected as usual, and a portion of the Ramnagar garden was sown with sugarcane for the elephants. Five acres at Chopra were sown with sál and the seedlings are growing well.

59. **Garhwal Division.**—There are no plantations. The trees in the mango grove on the Sanch camping ground are now two years old, from seven to ten feet high, and there are no blanks.

60. **Ganges Division.**—There are no plantations. The mango trees planted on the Chila and Haldukhátá camping grounds are growing well.

61. **Jhansi Division.**—Rupees 432 was spent on plantations, thus :—Planting 2,190 shisham trees and sowing shisham in Dhakwa, Ganúpúra, Bhasneo, and Magarpur, Rs. 68. Watering the young trees, Rs. 264. Repairing the well at Dhakwa and clearing out a well at Bhasneo, Rs. 100.

62. **Lalitpur Division.**—Rupees 50 was spent in sowing 10 acres with babul seed.

63. The following is a summary of the expenditure on artificial reproduction during the years 1883-84 and 1884-85 :—

Divisions.	1883-84.	1884-85.	
	Rs.	Rs.	
Naini Tal	629	532	*Vide* form No. 50 for 1883-84 and 1884-85.
Ranikhet	1,944	2,038	
Kumaun	322	232	
Garhwál	198	238	
Ganges	111	84	
Jhánsi	550	432	
Lalitpur	100	50	
Bánda	...	...	
Total	3,854	3,556	

7.—Cutting of creepers.

64. **Kumaun Division**—Rs. 253 were spent in cutting creepers over 2,477 acres in Western Kumaun and over 2,000 acres in the Chorgalia forest in Eastern Kumaun, and 8,782 creepers were cut by forest guards when going their rounds

65. **Garhwal Division**—Creepers were cut over 1,489 acres of the North Pátli Dún forest and over 1,100 acres of the Renar forest, at a cost of Rs. 125.

8—Experiments and Exotic Trees.

66. **Kumaun Division.**—In paragraph 72 of last year's annual report a full description was given of the three and a half-acre sample plots of sál forest which were fenced, and the trees measured, in 1881, with the object of collecting data for determining the rate of growth of sál.

It was also stated in the same paragraph that, in accordance with the Inspector-General's wish, three other plots of two acres each, alongside of the three-and-a-half acre plots, were fenced and thinned during March, 1884, in order to test the rate of growth of sál under more favourable circumstances than when left entirely to nature.

As the result of these experiments is likely to be very valuable, indeed, in the future, it is considered advisable to enter at full length the following six statements which give the measurement of each tree in the six plots as taken in March, 1884-85.

Printing those statements in the annual report is a sure way of ensuring a permanent record of the measurements, and it will rest with Government to decide whether corresponding statements shall be given annually, or at intervals of, say, three years.

Lachman Mandi half-acre plot.

Number of trees.	Girth in March, 1884.	Girth in March, 1885.	Difference.	Number of trees.	Girth in March, 1884.	Girth in March, 1885.	Difference.
Sál.	Ft. in ths.	Ft in ths.	Ft. in ths	Sál.	Ft. in ths.	Ft. in. ths.	Ft. in. ths.
1	2 3 7	2 4 2	0 0 5	38	2 7 4	2 7 6	0 0 2
2	2 2 5	2 3 3	0 0 8	39	1 4 2	1 4 6	0 0 4
3	4 4 5	4 4 6	0 0 1	40	1 2 0	1 2 5	0 0 5
4	3 4 7	3 5 2	0 0 5	41	2 10 6	2 11 6	0 1 0
5	4 3 5	4 4 0	0 0 5	42	1 7 4	1 7 7	0 0 3
6	3 7 4	3 7 8	0 0 4	43	4 0 0	4 0 0	...
7	1 4 6	1 4 6	...	44	0 11 4	1 0 6	0 1 2
8	1 2 0	1 2 0	...	45	3 7 6	3 8 5	0 0 9
9	1 6 8	1 7 2	0 0 4	46	0 9 8	0 10 1	0 0 3
10	1 9 0	1 9 3	0 0 3	47	0 11 2	1 0 7	0 1 5
11	5 2 9	5 3 7	0 0 8	48	3 3 7	3 4 4	0 0 7
12	4 5 7	4 6 3	0 0 6	49	0 9 6	0 8 9	...
13	1 1 6	1 2 0	0 0 4	50	1 4 5	1 4 7	0 0 2
14	1 7 5	1 7 8	0 0 3	51	3 5 2	3 5 5	0 0 3
15	0 11 2	0 11 3	0 0 1	52	2 1 3	2 1 3	Dry.
16	3 1 5	3 1 8	0 0 3	53	1 8 7	1 8 8	0 0 1
17	2 11 1	2 11 9	0 0 8	54	1 5 3	1 5 5	0 0 2
18	1 8 7	1 9 0	0 0 3	55	4 1 0	4 1 6	0 0 6
19	0 10 8	0 11 3	0 0 5	56	2 10 8	2 11 3	0 0 5
20	1 11 5	1 11 7	0 0 2	57	2 9 0	2 9 7	0 0 7
21	4 10 0	4 10 5	0 0 5	58	2 11 3	2 11 4	0 0 1
22	1 8 7	1 9 5	0 0 8	59	2 7 6	2 7 7	0 0 1
23	1 7 7	1 8 4	0 0 7	60	3 8 5	3 9 1	0 0 6
24	2 1 5	2 2 1	0 0 6	61	3 7 0	3 7 0	...
25	1 6 3	1 6 3	...	62	2 8 5	2 9 3	0 0 8
26	1 1 8	1 1 8	...	63	1 6 7	1 6 8	0 0 1
27	4 4 6	4 4 6	...	64	3 7 8	3 8 4	0 0 6
28	2 2 5	2 3 0	0 0 5	65	3 3 3	3 4 2	0 0 9
29	3 8 0	3 8 3	0 0 3			*Dhauri.*	
30	1 3 2	1 3 6	0 0 4	1	1 2 3	1 2 6	0 0 3
31	4 5 0	4 5 5	0 0 5	2	0 9 0	0 9 1	0 0 1
32	1 2 5	1 2 8	0 0 3	3	2 3 4	2 3 6	0 0 2
33	3 5 2	3 6 4	0 1 2			*Rohini.*	
34	2 6 4	2 7 1	0 0 7	1	1 6 1	1 6 7	0 0 6
35	4 5 5	4 5 7	0 0 2	2	1 1 0	1 1 7	0 0 7
36	4 1 4	4 1 7	0 0 3			*Chiula.*	
37	0 11 6	0 11 9	0 0 3	1	3 6 7	3 6 8	0 0 1

Total Sál trees, 65.
Total increase in girth, 27 inches.
Per tree, 0·42 inch.

Amtanola half-acre plot.

Number of trees.	Girth in March, 1884.	Girth in March, 1885.	Difference.	Number of trees.	Girth in March, 1884.	Girth in March, 1885.	Difference.
Sál.	Ft. in. ths.	Ft. in. ths.	Ft. in. ths.	Sál.	Ft. in. ths.	Ft. in. ths.	Ft. in. ths.
1	4 6 4	4 7 3	0 0 9	37	1 10 6	1 10 7	0 0 1
2	1 3 6	1 3 7	0 0 1	38	3 6 1	3 6 7	0 0 6
3	2 8 0	2 8 2dg.	0 0 2	39	3 8 1	3 8 5	0 0 4
4	4 5 4	4 5 6	0 0 2	40	2 7 0	2 7 1	0 0 1
5	2 10 7	2 11 3	0 0 6	41	3 1 0	3 0 8	...
6	1 11 5	1 11 8	0 0 3	42	3 11 7	3 0 2	0 0 5
7	1 10 5	1 10 6	0 0 1	43	2 7 5	2 7 6	0 0 1
8	3 7 4	3 7 6	0 0 2	44	2 0 5	2 9 8	0 0 3
9	1 8 7	1 8 2	0 0 5	45	4 0 5	4 0 8	0 0 3
10	4 1 1	4 1 8	0 0 7	46	1 8 8	1 9 2	0 0 4
11	4 5 6	4 6 1	0 0 5	47	1 5 5	1 5 5	...
12	2 5 6	2 6 1	0 0 5	48	2 10 3	2 10 4	0 0 1
13	2 9 6	Dead.	...	49	1 11 5	1 11 7	0 0 2
14	3 9 6	3 10 7	0 1 1	50	4 9 6	4 10 2	0 0 6
15	1 4 5	1 4 9	0 0 4	51	3 4 2	3 4 5	0 0 3
16	4 1 1	4 1 3	0 0 2	52	3 4 0	3 4 3	0 0 3
17	1 6 5	1 6 6	0 0 1	53	3 7 6	3 8 2	0 0 6
18	2 2 5	2 2 8	0 0 3	54	1 11 2	1 11 7	0 0 5
19	2 5 4	2 6 0	0 0 6	55	1 6 2	1 6 3	0 0 1
20	2 7 0	2 7 4	0 0 4	56	2 10 5	2 11 3	0 0 8
21	4 6 3	4 6 8	0 0 5	57	2 2 5	2 2 8	0 0 3
22	2 11 6	3 0 1	0 0 5	58	2 4 0	2 3 8	...
23	3 9 5	3 9 9	0 0 4	59	4 6 5	4 6 9	0 0 4
24	2 11 6	2 11 8	0 0 2	60	2 6 1	2 6 3	0 0 2
25	4 5 4	4 5 8	0 0 4	61	5 7 6	5 8 5	0 0 9
26	2 8 5	2 8 5	...	62	2 7 7	2 8 0	0 0 3
27	4 4 1	4 4 8	0 0 7	63	3 11 3	3 11 8	0 0 5
28	2 3 7	2 4 0	0 0 3	64	2 11 6	2 11 9	0 0 3
29	5 9 1	5 9 8	0 0 7	65	2 10 6	2 11 0	0 0 4
30	2 0 4	2 0 3	...	66	1 5 5	1 5 8	0 0 3
31	4 8 5	4 9 5	0 1 0	67	2 7 6	2 7 9	0 0 1
32	1 7 0	1 7 0	...	68	1 8 0	1 8 3	0 0 3
33	3 2 5	Dead.	...	69	2 1 4	2 1 6	0 0 2
34	4 2 5	4 2 9	0 0 4	70	3 7 1	3 7 5	0 0 4
35	3 9 3	3 9 8	0 0 5	71	3 10 8	3 10 9	0 0 1
36	2 8 6	2 8 9	0 0 3				

Trees, 69.
Total increase, 25·8 inches.
Per tree, 0·37 inch.

Sunmun Thapla half-acre plot.

1	3 4 2	3 4 8	0 0 6	39	4 4 1	4 5 0	0 0 9
2	2 1 7	2 2 0	0 0 3	40	3 6 1	3 7 0	0 0 9
3	2 6 0	2 6 1	0 0 1	41	0 10 5	0 10 5	...
4	3 3 5	3 4 0	0 0 5	42	1 5 2	1 5 5	0 0 3
5	3 0 0	3 0 7	0 0 7	43	1 5 6	1 5 6	...
6	1 5 3	1 5 3	...	44	2 1 5	2 2 1	0 0 6
7	3 1 7	3 2 1	0 0 4	45	4 7 7	4 7 7	...
8	4 0 0	4 0 1	0 0 1	46	2 10 8	2 11 2	0 0 4
9	3 9 7	3 10 4	0 0 7	47	3 2 6	3 3 3	0 0 7
10	2 6 8	2 6 8	...	48	1 3 2	1 3 4	0 0 2
11	4 3 4	4 4 2	0 0 8	49	2 7 0	2 7 5	0 0 5
12	1 7 7	1 7 8	0 0 1	50	1 8 6	1 9 1	0 0 5
13	1 1 5	1 1 5	...	51	2 9 5	2 10 2	0 0 7
14	2 8 7	2 9 4	0 0 7	52	2 6 8	2 6 8	...
15	1 0 2	1 0 5	0 0 3	53	1 6 8	1 7 5	0 0 7
16	2 8 5	2 8 7	0 0 2	54	4 11 1	4 11 6	0 0 5
17	1 6 8	1 7 0	0 0 2	55	0 9 2	0 9 5	0 0 3
18	1 3 2	1 3 2	...	56	1 5 0	1 5 2	0 0 2
19	3 4 6	3 5 2	0 0 6	*Dhauri.*			
20	1 5 1	1 5 2	0 0 1	1	0 10 8	0 11 3	0 0 5
21	3 7 0	3 7 3	0 0 3	2	0 11 6	0 11 8	0 0 2
22	2 10 8	2 11 0	0 0 5	3	1 1 1	1 1 3	0 0 2
23	1 4 4	1 4 7	0 0 3	4	2 10 5	2 10 8	0 0 3
24	1 5 4	1 5 4	...	5	2 0 0	2 0 4	0 0 4
25	1 0 8	1 0 8	...	6	2 3 3	2 3 5	0 0 2
26	1 9 7	1 9 7	...	*Rohini.*			
27	9 2 5	9 2 5	...	1	1 4 2	1 5 2	0 1 0
28	1 5 7	1 5 8	0 0 1	2	2 2 2	2 2 5	0 0 3
29	4 1 8	4 2 3	0 0 5	3	1 3 5	1 3 7	0 0 2
30	4 9 5	4 9 9	0 0 4	4	1 5 5	1 5 5	...
31	2 1 6	2 2 0	0 0 4	5	1 9 0	1 9 7	0 0 7
32	1 1 8	1 2 0	0 0 2	*Indrajo.*			
33	1 7 8	1 8 5	0 0 7	1	1 8 3	1 8 4	0 0 1
34	1 4 6	1 5 2	0 0 6	2	1 8 5	1 8 5	...
35	2 7 2	2 7 5	0 0 3	*Chilla.*			
36	2 5 5	2 5 5	...	1	3 2 4	3 2 5	0 0 1
37	1 1 5	1 2 0	0 0 2	*Harra.*			
38	3 4 0	3 4 10	0 0 10	1	1 1 5	1 1 5	...

56 Sál trees.
Total increase, 19·3 inches.
Per tree 0·34 inch.

Luchman Mandi, two-acre plot.

Number of trees	Girth in March, 1884.	Girth in March, 1885.	Difference.	Number of trees.	Girth in March, 1884.	Girth in March, 1885.	Difference.
Sál	Ft. in. ths.	Ft. in ths.	Ft. in. ths.	Sál.	Ft. in. ths.	Ft. in. ths.	Ft. in. ths.
1	3 2 1	3 2 7	0 0 6	58	3 10 5	3 11 3	0 0 8
2	4 5 0	4 5 8	0 0 8	59	2 5 4	2 5 8	0 0 4
3	2 4 4	2 5 6	0 1 2	60	3 9 0	3 9 5	0 0 5
4	3 1 7	3 2 8	0 1 1	61	3 9 7	3 10 5	0 0 8
5	1 7 0	1 8 0	0 1 0	62	3 0 3	3 5 3	0 1 0
6	2 1 6	2 2 6	0 1 0	63	1 7 0	1 7 5	0 0 5
7	4 3 5	4 4 3	0 0 8	64	2 4 3	2 5 6	0 1 3
8	3 2 0	3 2 6	0 0 6	65	2 5 8	2 7 0	0 1 2
9	4 1 2	4 1 5	0 0 3	66	1 5 7	1 6 5	0 0 8
10	4 10 8	4 11 6	0 0 8	67	1 11 7	2 0 3	0 0 5
11	4 5 5	4 6 1	0 0 6	68	3 11 2	4 0 3	0 1 1
12	4 5 1	4 5 5	0 0 4	69	2 6 3	2 7 4	0 1 1
13	5 0 5	5 1 0	0 1 5	70	4 7 0	4 7 6	0 0 6
14	1 10 0	1 10 7	0 0 7	71	4 0 5	4 1 5	0 1 0
15	3 6 8	3 7 5	0 0 7	72	3 9 0	3 9 8	0 0 8
16	4 4 8	4 5 7	0 0 9	73	1 10 2	1 10 8	0 0 6
17	3 6 8	3 7 3	0 0 5	74	2 2 5	2 3 4	0 0 9
18	3 1 7	3 2 0	0 1 3	75	2 1 5	2 2 0	0 0 5
19	2 1 8	2 2 7	0 0 9	76	3 7 4	3 8 3	0 0 9
20	3 3 4	3 4 5	0 1 1	77	4 3 0	4 3 9	0 0 9
21	3 0 7	3 1 4	0 0 7	78	3 10 2	3 11 0	0 0 8
22	3 9 4	3 10 3	0 0 9	79	4 2 7	4 8 6	0 0 9
23	4 3 0	4 4 3	0 1 3	80	4 5 9	4 6 7	0 0 8
24	3 0 2	3 1 0	0 0 8	81	1 9 4	1 9 8	0 0 4
25	2 0 2	2 1 2	0 1 0	82	3 2 7	3 4 2	0 1 5
26	1 7 7	1 8 4	0 0 7	83	1 9 1	1 9 7	0 0 6
27	3 11 4	3 11 7	0 0 3	84	2 8 2	2 9 2	0 1 0
28	3 0 3	3 1 3	0 1 0	85	3 0 2	3 1 3	0 1 1
29	2 5 3	2 6 8	0 1 5	86	2 3 2	2 4 5	0 1 3
30	2 2 8	2 4 1	0 1 3	87	1 6 1	1 7 0	0 0 9
31	3 8 7	3 9 6	0 0 9	88	3 9 2	3 10 0	0 0 8
32	3 0 8	3 1 8	0 1 0	89	2 7 5	2 8 9	0 1 4
33	2 9 3	2 10 2	0 0 9	90	2 3 7	2 4 6	0 0 9
34	4 5 7	4 6 6	0 0 9	91	3 4 1	3 5 1	0 1 0
35	3 1 8	3 2 4	0 0 6	92	2 5 7	2 7 1	0 1 4
36	2 2 5	2 3 6	0 1 1	93	4 10 7	4 11 0	0 0 8
37	4 7 5	4 7 9	0 0 4	94	1 5 7	1 7 0	0 1 3
38	3 3 5	3 4 2	0 0 7	95	4 6 5	4 7 5	0 1 0
39	2 0 8	2 1 8	0 1 0	96	4 9 2	4 9 7	0 0 5
40	2 2 2	2 2 4	0 0 2	97	3 0 9	3 1 7	0 0 8
41	2 2 2	2 3 2	0 1 0	98	2 7 1	2 8 1	0 1 0
42	4 4 5	4 5 5	0 1 0	99	2 11 5	3 0 0	0 0 5
43	2 4 7	2 5 7	0 1 0	100	2 6 5	2 7 5	0 1 0
44	1 6 9	1 7 9	0 1 0	101	1 6 9	1 7 5	0 0 6
45	2 7 5	2 8 7	0 0 9	102	1 11 5	2 0 5	0 1 0
46	2 8 6	2 8 7	0 0 1	103	1 5 2	1 5 7	0 0 5
47	2 10 8	2 11 7	0 0 9	104	1 5 7	1 7 1	0 1 4
48	4 11 2	5 0 3	0 1 1	105	1 11 7	2 0 7	0 1 0
49	2 0 8	2 1 0	0 0 2	106	1 7 7	1 8 4	0 0 7
50	0 11 0	1 0 0	0 1 0	107	1 6 7	1 7 4	0 1 7
51	3 6 4	3 6 8	0 0 4	108	1 2 2	1 3 2	0 1 0
52	3 5 3	3 6 4	0 1 1	109	1 1 5	1 2 0	0 0 5
53	2 6 1	2 6 5	0 0 4	110	1 3 6	1 4 7	0 1 1
54	3 9 2	3 10 3	0 1 1	111	1 10 8	1 10 8	...
55	1 3 9	1 4 4	0 0 5	112	2 5 2	2 6 2	0 1 0
56	3 9 5	3 10 3	0 0 8	113	1 4 3	1 4 9	0 0 6
57	3 0 0	3 0 7	0 0 7	114	1 5 1	1 5 7	0 0 6

Total trees, 114.
Total increase, 95·3 inches.
Per tree 0·83 inch.

Amtanola two-acre plot.

1	4 3 0	4 3 9	0 0 9	21	4 6 0	4 7 2	0 1 2
2	1 10 6	1 10 5	0 0 5	22	3 0 2	3 8 3	0 1 1
3	2 4 7	2 5 5	0 0 8	23	4 6 1	4 7 0	0 0 9
4	3 6 4	3 7 2	0 0 8	24	4 8 0	4 9 5	0 1 5
5	3 1 0	3 1 6	0 0 6	25	4 7 1	4 8 0	0 0 9
6	3 9 2	3 9 7	0 0 5	26	3 11 3	4 0 4	0 1 1
7	4 5 0	4 5 1	0 0 1	27	4 6 8	4 8 0	0 1 2
8	3 9 4	3 9 9	0 0 5	28	3 4 7	3 5 4	0 0 7
9	2 9 3	2 10 2	0 0 9	29	4 10 1	4 11 2	0 1 1
10	3 6 3	3 7 2	0 0 9	30	4 5 4	4 6 2	0 0 8
11	3 11 5	4 0 6	0 1 1	31	4 2 6	4 3 7	0 1 1
12	3 0 6	3 1 3	0 0 7	32	4 11 8	5 1 0	0 1 2
13	3 2 8	3 3 7	0 0 9	33	3 5 5	3 6 2	0 0 7
14	3 1 0	3 1 9	0 0 9	34	4 2 5	4 3 1	0 0 6
15	4 3 3	4 4 3	0 1 0	35	3 11 0	3 11 7	0 0 7
16	4 6 4	4 7 2	0 0 8	36	4 6 2	4 7 2	0 1 0
17	4 6 0	4 6 5	0 0 5	37	2 2 6	2 3 1	0 0 5
18	2 9 5	2 9 8	0 0 3	38	3 3 7	3 4 5	0 0 8
19	4 1 7	4 2 7	0 1 0	39	3 4 6	3 5 4	0 0 8
20	4 2 5	4 3 4	0 0 9	40	3 0 5	3 1 0	0 0 5

Amtanola two-acre plot—(concluded).

Number of trees.	Girth in March, 1884.			Girth in March, 1885.			Difference.			Number of trees.	Girth in March, 1884.			Girth in March, 1885.			Difference.		
Sál.	Ft.	in.	ths.	Ft.	in.	ths.	Ft.	in.	ths.	Sál.	Ft.	in.	ths.	Ft.	in.	ths.	Ft.	in.	ths.
41	3	8	6	3	9	8	0	1	2	78	3	11	4	4	0	2	0	0	8
42	3	4	7	3	7	2	0	2	5	79	3	4	7	3	5	2	0	0	5
43	2	11	7	3	0	5	0	0	8	80	3	11	0	3	11	5	0	0	5
44	3	10	4	3	11	2	0	0	8	81	4	0	5	4	1	3	0	0	8
45	3	0	2	3	1	0	0	0	8	82	3	1	5	3	1	8	0	0	3
46	4	5	3	4	6	1	0	0	8	83	3	5	5	3	6	1	0	0	6
47	4	4	1	4	5	2	0	1	1	84	3	9	5	3	10	5	0	1	0
48	3	2	4	3	3	0	0	0	6	85	2	9	5	2	10	0	0	0	5
49	3	8	7	3	9	0	0	0	3	86	4	1	0	4	1	5	0	0	5
50	3	3	1	4	4	2	0	1	1	87	4	0	4	4	1	3	0	0	9
51	2	8	0	2	8	5	0	0	5	88	3	0	0	3	0	6	0	0	6
52	2	11	0	2	11	4	0	0	4	89	4	0	3	4	1	1	0	0	8
53	3	3	8	3	4	6	0	0	8	90	3	11	7	4	0	2	0	0	5
54	3	3	7	3	4	6	0	0	9	91	3	10	2	3	11	1	0	0	9
55	4	6	4	4	6	9	0	0	5	92	3	2	5	3	3	3	0	0	8
56	4	6	7	4	6	8dg	0	0	1	93	2	9	0	2	9	8	0	0	8
57	4	7	0	4	8	3	0	1	3	94	3	2	1	3	2	6	0	0	5
58	5	0	3	5	0	4dg	0	0	1	95	3	0	7	3	1	5	0	0	8
59	3	10	5	3	10	7dg	0	0	2	96	3	5	5	3	6	0	0	0	5
60	4	2	0	4	2	7	0	0	7	97	4	11	5	5	1	0	0	1	5
61	3	7	5	3	8	4	0	0	9	98	3	4	8	3	5	6	0	0	8
62	3	0	1	3	1	0	0	0	9	99	1	5	4	1	5	8	0	0	4
63	4	2	0	4	2	7	0	0	7	100	5	0	0	5	0	5	0	0	5
64	4	8	4	4	9	1	0	0	7	101	4	1	3	4	2	2	0	0	9
65	4	3	7	4	4	7	0	1	0	102	3	6	5	3	7	3	0	0	8
66	3	8	0	3	9	0	0	1	0	103	3	11	5	4	0	5	0	1	0
67	5	0	2	5	0	7	0	0	5	104	3	2	7	3	3	5	0	0	8
68	3	3	7	3	4	3	0	0	6	105	4	8	0	4	8	5	0	0	5
69	4	1	4	4	1	8	0	0	4	106	4	1	3	4	2	2	0	0	9
70	4	10	4	4	11	4	0	1	0	107	3	0	5	3	1	7	0	1	2
71	3	9	3	3	10	1	0	0	8	108	4	4	6	4	4	5	...		
72	4	4	0	4	5	0	0	1	0	109	3	4	5	3	4	7dg	0	0	2
73	4	2	6	4	3	5	0	0	9	110	3	3	7	3	4	4	0	0	7
74	3	8	0	3	9	0	0	1	0	111	3	6	1	3	7	0	0	0	9
75	4	4	3	4	5	1	0	0	8	112	3	8	7	4	9	8	0	1	1
76	3	6	8	3	7	4	0	0	6	113	3	8	6	3	9	7dg	0	1	1
77	4	1	2	4	2	2	0	1	0	114	3	10	8	3	11	2	0	0	4

114 trees.
Total increase, 88·6 inches.
Per tree 0·78 inch.

Two-acre plot at Sanman Thápla.

1	2	9	5	2	10	4	0	0	9	40	2	6	5	2	7	9	0	1	4
2	2	7	7	2	8	6	0	0	9	41	1	6	8	1	6	8	...		
3	2	4	7	2	5	4	0	0	7	42	2	7	8	2	8	6	0	0	8
4	2	9	3	2	10	5	0	1	2	43	4	0	1	4	1	0	0	0	9
5	3	8	5	3	9	2	0	0	7	44	3	3	0	3	3	6	0	0	6
6	2	7	0	2	7	7	0	0	7	45	3	6	8	3	7	3	0	0	5
7	2	5	7	2	7	2	0	1	5	46	1	7	7	1	7	9	0	0	2
8	3	1	4	3	2	1	0	0	7	47	3	1	7	3	2	1	0	0	4
9	3	4	0	3	4	6	0	0	6	48	3	5	7	3	6	5	0	0	8
10	2	4	7	2	5	2	0	0	5	49	4	5	7	4	6	3	0	0	6
11	2	6	1	2	6	7	0	0	6	50	2	5	0	2	5	1	0	0	1
12	3	7	0	3	7	8	0	0	8	51	3	4	0	3	4	6	0	0	6
13	4	0	7	4	1	2	0	0	5	52	4	4	5	4	5	2	0	0	7
14	2	5	5	2	6	1	0	0	6	53	3	11	5	3	11	9	0	0	4
15	3	2	0	3	2	10	0	0	10	54	2	8	7	2	9	2	0	0	5
16	1	8	8	1	9	6	0	0	8	55	5	0	7	5	1	3	0	0	6
17	3	8	6	3	9	3	0	0	7	56	3	7	7	3	8	6	0	0	9
18	4	8	0	4	8	2	0	0	2	57	1	9	7	1	10	2	0	0	5
19	4	10	7	4	11	4	0	0	7	58	1	1	8	1	2	2	0	0	4
20	2	3	5	2	3	8	0	0	3	59	2	9	2	2	9	9	0	0	7
21	4	10	0	4	10	1	0	0	1	60	2	1	6	2	2	0	0	0	4
22	1	7	0	1	7	2	0	0	2	61	2	2	0	2	2	7	0	0	7
23	1	11	0	1	11	2	0	0	2	62	3	9	1	3	9	8	0	0	7
24	3	8	7	3	8	9	0	0	2	63	2	8	2	2	9	1	0	0	9
25	4	3	8	4	4	3	0	0	5	64	2	4	5	2	5	2	0	0	7
26	4	2	5	4	2	8	0	0	3	65	3	11	3	4	0	0	0	0	7
27	5	3	5	5	4	1	0	0	6	66	3	2	5	3	3	3	0	0	8
28	2	11	7	3	0	0	0	0	3	67	3	6	8	3	7	6	0	0	8
29	3	2	6	3	3	2	0	0	6	68	3	2	8	3	3	0	0	0	2
30	1	5	2	1	5	7	0	0	5	69	3	8	7	3	9	4	0	0	7
31	1	9	5	1	10	2	0	0	7	70	3	6	8	3	7	2	0	1	[illegible]
32	3	10	4	3	10	7	0	0	3	71	4	8	5	4	9	1	0	0	6
33	2	1	5	2	2	0	0	0	5	72	2	8	2	2	8	8	0	0	6
34	2	8	7	2	9	4	0	0	7	73	2	5	4	2	6	1	0	0	7
35	3	3	0	3	3	4	0	0	4	74	3	4	2	3	4	9	0	0	7
36	4	2	0	4	2	3	0	0	3	75	1	6	5	1	6	8	0	0	3
37	3	3	2	3	3	9	0	0	7	76	4	8	0	4	8	6	0	0	6
38	3	9	5	3	10	9	0	1	4	77	2	4	5	2	5	5	0	1	0
39	4	8	0	4	8	7	0	0	7	78	1	9	4	1	10	3	0	0	9

NOTE.—dg. signifies dying.

Two-care plot at Sanman Thápla—(concluded).

Number of trees.	Girth in March, 1884			Girth in March, 1885			Difference.			Number of trees.	Girth in March, 1884.			Girth in March, 1885.			Difference.		
Sál.	Ft	in	ths.	Ft	in	ths.	Ft.	in.	ths.	Sál.	Ft.	in.	ths	Ft	in.	ths.	Ft.	in	ths.
79	2	9	2	2	10	1	0	0	9	98	2	6	0	2	6	3	[illegible]	0	3
80	2	3	2	2	4	0	0	0	8	99	3	10	8	3	10	8	...	...	...
81	3	0	5	3	0	0	0	0	4	100	4	6	8	4	7	2	0	0	4
82	4	7	6	4	7	9	0	0	3	101	3	4	4	3	4	5	0	0	1
83	1	11	8	2	0	3	0	0	5	102	3	4	5	3	6	2	0	0	7
84	2	11	6	3	0	2	0	0	4	103	3	6	4	3	9	2	0	[illegible]	8
85	2	2	0	2	2	6	0	0	6	104	1	1	8	1	2	5	0	0	7
86	3	9	4	3	9	9	0	0	5	105	5	0	9	5	1	3	0	0	4
87	4	2	4	4	3	3	0	0	9	106	2	7	5	2	8	4	0	0	9
88	4	0	0	4	1	0	0	1	0	107	4	3	5	4	4	3	0	0	8
89	3	1	5	3	2	6	0	1	1	108	3	10	2	3	10	4	0	0	2
90	2	2	7	2	3	3	0	0	6	109	3	4	3	3	5	1	0	0	8
91	2	7	6	2	7	9	0	0	3	110	3	2	2	3	2	8	0	0	6
92	2	8	2	2	8	6	0	0	4	111	2	5	0	2	5	2	0	0	2
93	3	1	5	3	2	6	0	1	1	112	3	10	1	3	10	8	0	0	7
94	2	9	0	2	9	9	0	0	9	113	5	2	6	5	3	1	0	0	5
95	3	1	0	3	1	4	0	0	4	114	4	0	0	4	0	6	0	0	6
96	2	9	5	2	10	3	0	0	8	115	3	4	8	3	5	5	0	0	7
97	3	9	0	3	9	6	0	0	6										

115 trees.
Total increase, 70 3 inches.
Per tree 0·61 inch.

These statements are very interesting records, for they show the extraordinary increase of growth in the two-acre plots which have been thinned, as compared with the growth in the half-acre plots which are in their natural state. If thinning has the effect of increasing growth during a succession of years in anything approaching the rate of increase during this first year of the experiment, every sál pole forest ought to be treated in the same way as these three two-acre plots.

The following table shows the average increase per tree during the year 1884-85 in the six experimental plots :—

Description of plot.	Names of plots.			Average increase of three plots.
	Lachman mandi.	Amtanola	Sanman Thápla.	
	Inch.	Inch.	Inch.	Inch
Two-acre plots thinned	·83	·78	·61	·74
Half-acre plots in natural state	·42	·37	34	·376

The increase of growth in the thinned plots being almost double the increase in the plots which are in their natural state.

(9) Communications and buildings.

67. *Expenditure.*—The expenditure was as follows as compared with that of the previous year :—

Years.	Roads and bridges.	Buildings.	Other works.	Total.
	Rs.	Rs.	Rs.	Rs.
1883-84	30,046	10,352	185	40,583
1884-85	29,268	9,908	136	40,312

68. *Roads and bridges.*—The repair of existing roads cost Rs. 24,487, and the construction of about 31 miles of new roads and paths of all classes cost Rs. 6,449.

(*N. B.*—Rs. 1,668 was charged to heads AIa or AII.)

69. The following statement shows the length of roads and paths constructed and maintained by the department at the end of the year 1884-85 :—

Description of roads.	Length in miles.								
	Naini Tal.	Ránikhet.	Kumaun.	Garhwál.	Ganges.	Jhánsi.	Lalitpur.	Bánda.	Total.
In the Bhábar and Plains.									
Cart roads	...	...	287	†269	§134	9	12	33	744
Bridle roads and	...	...	279	...	22	...	...	...	301
Fire line paths	...	...	—	‡367	...	...	...	...	367
In the Hills.									
Roads of 5 feet and over	21	...	...	...	91	...	...	...	112
Roads of under 5 feet	*13	*37	...	...	...	...	...	...	50
Total ...	34	37	566	636	247	9	12	33	1,574

Naini Tal Division.—The repairs of 28 miles of roads cost Rs. 188. A new road was made to Jabar, three miles long and four feet broad, which cost Rs. 170, and three miles and 25 chains of temporary timber paths, under 5 feet in breadth, were made at a cost of Rs. 152.

Ranikhet Division.—Rs. 82 were spent on repairing 36 miles of existing roads, and Rs. 32 on constructing a portion (1 mile, 10 chains) of a road from Dalmoti to Ghingaru Khal.

Kumaun Division.—The ordinary repair of roads cost Rs. 4,454.

The following extraordinary repairs were done during the year :—

The road from Durga Deh to Jiru Jali, 9 miles, 63 chains, was opened out for cart traffic at a cost of Rs. 1,909.

The road from Chorgalia to Thanakpur, 26 miles, 44 chains, was straightened, levelled, stumped, and ditched at a cost of Rs. 1,771.

The road from Raikhal to Lalkua, 7 miles, 21 chains, was straightened and made good for carts at a cost of Rs. 254.

The road from Jalaban to Bourkhata, 13 miles, 38 chains, was made fit for carts at a cost of Rs. 338.

The road from the Sitarganj road to Banbassa, 25 miles, 23 chains, was widened and embanked at a cost of Rs. 907.

These two last roads run along the southern line of Kham Tahsil Choukies.

Two new cart roads were constructed, *viz.* :—

From Chaithan to Hathigliar, 4 miles, 16 chains, at a cost of Rs. 317. From Chorgalia to Raikhal, 3 miles, 27½ chains, at a cost of Rs. 262.

Garhwal Division.—Rs. 12,044 were spent on the repairs of 259½ miles of existing roads, but this includes Rs. 900 paid for repairing 63 miles of road in the Bijnor district in 1883-84.

Rs. 5,110 were spent on the construction of new roads, thus :—

	Miles.	chains.	Rs.
‖ Delidhunga cart road, 2 miles, 71 chains, (half charged in 1883-84)			996
‖ Sya Sot ditto	3	75	20
Dhinki-chokam in (1883-84)	3	53	1,950
Mundalti-Chugal pani ditto	1	20	552
Dhikola Chour ditto	1	...	30
Dalmina Sot ditto	1	...	15
Dobna Sot ditto	2	...	20
Amsot ... ditto	1	...	12
Daya bridge 55 feet, span 12 feet wide	.	...	1,090
Temporary cart roads and paths for the season's timber works charged to All.		...	355

* Should have been 7 miles in last year's report instead of 3
† Should have been 259 do. do. do. 196
‡ Should have been 321 do. do. do. 269
§ Should have been 129 do. do. do. 135
‖ These two roads were made in 1883-84 and their mileage is included in the statement in paragraph 75 of the 1883-84 report.

Ganges Division.—Rs. 2,100 were spent on repairing 129 miles of existing roads, and Rs. 406 on constructing a 6-feet road from Kathal to Chalnoria, 4½ miles in length.

Jhansi Division.—Rs. 118 were spent on repairing 9 miles of roads.

Lalitpur Division.—Rs. 68 were spent on repairing 12 miles of cart tracks between Thingunna and Bangawa.

Banda Division.—Rs. 254 were spent on repairing 33 miles of the Kaluha, Tilyasib, and Budhak roads.

70. *Buildings.*—The total expenditure under this head was Rs. 9,908, thus :—

	Rs.
Repair of existing buildings	2,371
Construction of officer's rest-houses	3,799
Ditto of permanent chaukis and houses for subordinates, stores, &c. ...	3,646
Ditto of temporary chaukis, &c.	101

71. The following is a list of the buildings which have been constructed and are maintained for the use of officers and subordinates :—

Description.	For the use of Officers.	For the use of Subordinates.	Offices, stores, chaukis, &c.	Wells.	Total.	Remarks.
Direction.						
Permanent	...	...	1	...	1	The office building also contains rooms for Kumaun and Garhwál.
Semi-permanent	...	...	...	...	...	
Temporary	...	...	...	...	...	
Total ...	...	...	1	...	1	
Naini Tal.						
Permanent	1	6	3	...	10	
Semi-permanent	1	...	...	...	1	
Temporary	...	1	...	...	1	
Total ...	2	7	3	...	12	
Ránikhet						
Permanent	1	2	...	...	3	
Semi-permanent	1	...	...	...	1	
Temporary	...	...	...	...	...	
Total ...	2	2	...	...	4	
Kumaun.						
Permanent	5	3	11	2	21	
Semi-permanent	...	...	...	...	...	
Temporary	...	...	...	...	...	
Total ...	5	3	11	2	21	
Garhwál						
Permanent	2	...	3	1	6	
Semi-permanent	1	...	...	...	1	
Temporary	...	...	...	...	...	
Total ...	3	...	3	1	7	
Ganges.						
Permanent	5	...	1	...	6	Four are in the leased forests.
Semi-permanent	2	...	...	...	2	
Temporary	...	...	...	...	...	One is in the leased forests.
Total ...	7	...	1	...	8	
Jhánsi.						
Permanent	...	...	...	1	1	
Semi-permanent	1	...	3	...	4	
Temporary	...	...	...	...	...	
Total ...	1	...	3	1	5	
Lalitpur.						
Permanent	...	...	...	...	...	
Semi-permanent	2	...	20	...	22	
Temporary	...	...	...	...	...	
Total ...	2	...	20	...	22	
Bánda.						
Permanent	...	...	...	...	...	
Semi-permanent	1	...	1	...	2	
Temporary	...	...	...	...	...	
Total ...	1	...	1	...	2	
GRAND TOTAL ...	23	12	43	4	82	

The expenditure on buildings is explained thus :—

Direction Division—

	Rs.
Repair of office building	37

Naini Tal Division—

Repair of existing buildings...	92

Ranikhet Division—

Repairs and alterations of existing buildings	215

Kumaun Division—

Repair of existing buildings	698
Constructing office and out houses at Haldwani	1,907
Do 3rd class rest-house at Bijrani	494
Do. Kham tahsil chauki at Dhela	472
Do. do. do. do. Jalaban	460
Do. do. do. do. Garappu	540

Garhwal Division—

Repair of existing buildings	370
Constructing a building at Kalagarh which contains the Kham tahsil chauki, a ranger's room, store-room, and out-offices	1,200
Constructing a 3rd class rest-house at Kalagarh	700
Do. an Elephant shed at Jhirna	330
Do. out-houses for the Dhikala 1st class rest-house	400

Ganges Division—

Repair of existing buildings	657
Constructing out-houses for the Chila 1st class rest-house	290
Do. Kham tahsil chauki at Laldhang	369

Jhansi Division—

Repair of existing buildings	84
Constructing a Chauki at Kachnoo	291

Lalitpur Division—

Repair of existing buildings	235
Constructing three Chouki s at Kuchnowda, Gonah and Rajpur ...	101
Completing the Lalitpur depôt	14

Banda Division—

Repair of existing buildings	22
Total ...	9,908

72. *Other works—*

The expenditure is as follows :—

Kumaun Division—

Cost of constructing three wells at Patrampur, Phanton, and Jaunla sal ...	874

Garhwal Division—

Part cost of constructing a well at Morghati	246

Banda Division—

Cost of clearing out a well at Deoli	16

CHAPTER IV.

YIELD AND WORKING.

1.—Departmental Operations.

73. The annual forms 58, 59, 60, 61, 62, and 64 attached to the report show the results of the timber operations which are conducted departmentally. These returns will now be reproduced in abstract, and the results considered :—

A Form 58.—Trees felled by Government agency (selection fellings).
B. „ 59.—Outturn of timber and other produce cut and collected by Government agency.
C. „ 60.—Timber and other produce received from forests in sale depôts.
D. „ 61.—Sales of timber and other produce cut and collected by Government agency.
E. „ 62.—Account of timber and other produce cut and collected by Government agency and brought to sale depôts or sold locally.
F „ 64.—Timber and other produce sold to Public Departments from depots.

74. A.—Trees felled by Government agency (selection fellings). (Form No. 58)—

Divisions.	Chir.		Oak.		Sál.		Sesu.		Box.		Miscellaneous.		Total, 1884-85.		Total, 1883-84.	
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Naini Tal ...	564	20,600	150	8,900	...	...	...	...	...	...	31	258	745	29,7[illegible]	441	20,900
Ránikhet ...	401	23,000	81	8,253	...	...	...	...	...	...	164	5,809	646	37,053	2,218	35,875
Kumaun ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,442	19,207
Garhwál ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0 ...
Ganges ...	...	...	...	...	...	...	...	...	132	528	...	...	132	528	4,540	13,603
Jhánsi ...	...	...	...	...	...	...	...	...	...	...	432	1,296	432	1,296	561	1,683
Lalitpur ...	...	...	...	...	...	...	...	...	...	...	1,482	4,228	1,482	4,228	2,893	5,019
Bánda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	965	43,600	231	17,153	...	...	...	...	132	528	2,109	11,582	3,437	72,868	12,465	96,286

The classification of the trees is given in the abstract at the foot of form 58. The average cubic contents of the trees is 21 feet, the average being greatly reduced by the fellings in the Jhánsi and Lalitpur divisions, the trees in which divisions though mature being very small—all of them of the 4th class, under one and half foot in girth.

In addition to the "selection fellings," there were 691 trees felled by Government agency under thinnings and clearances, as shown in Appendix B, "statement of trees felled." As compared with last year's fellings there is a decrease of 9,028 trees, or, taking the outturn, of 23,425 cubic feet of timber. In comparison with the fellings of 1882-83 the decrease is still more marked. This is in no way attributable to any failure on the part of the Department to meet the demands made upon it. In the sub-montane forests of the Kumaun, Garhwál, and Ganges divisions, the private enterprise system has been substituted for departmental agency, in accordance with the policy of the last few years, and this accounts for the large decrease in the Kumaun Division. In the Ránikhet Division the decrease is due to more dead wood, suitable for fuel, having been found than was anticipated, thereby rendering it unnecessary to fell a large number of trees. The outturn in cubic feet was greater in 1884-85 than during the previous year. The only other large decrease is in the Ganges Division, and this is entirely due to the Executive Engineer of the Northern Division of the main Ganges Canal having, after getting his annual supply of timber for the head works from this division for several successive years, obtained it from another source in 1884-85.

The small decrease of about 800 cubic feet in the Lalitpur Division is due to fluctuation in the demand.

75. B.—The outturn of timber and other produce cut and collected by Government agency, compared with the outturn of the year before (Form No. 59) was :—

Timber.

1883-84.			1884-85.		
	Number.	C. feet.		Number.	C. feet.
Chir logs	1,454	12,400	Chir logs	2,400	20,700
Sal sleepers	3	4	Ash ,, ...	1	10
,, karis	10,846	19,518	Chir karis	703	937
Sál ,, ...	31	224	,, poles	487	844
Sál joras	44	66	Miscellaneous ballis ...	7,895	9,171
Kokat ballas, ballis and tors	5,005	12,895	Box-wood pieces ...	318	396
Chir ballis and slabs ...	491	155	Miscellaneous pieces ...	3,992	1,162
Miscellaneous ballis ..	12,147	13,658			
Box-wood pieces	389	556			
Miscellaneous pieces ...	6,254	1,769			
Total ...	36,714	61,250	Total ...	15,696	33,120

Other produce.

1883-84.		1884-85.	
Firewood	96,708 Mds.	Firewood	87,989 Mds.
Charcoal	1,019 „	Charcoal	1,298 „
Bamboos	909,481 No.	Bamboos	689,797 No.
Kiras	3,252 „	Kiras	1,827 „
Kurias	166,367 „	Kurias	209,848 „
Hides	4 „	Hides	1 „
Lime	82 Mds.	Mahua	214 Mds.
Mahua	127 „	Confiscated drift and waif wood.	617 c. ft.
Confiscated drift and waif wood.	2,229 c. ft.	Firewood	2 Mds.
		Bamboos	1,950 No.
		Kurias	285 „

The outturn of timber has fallen from 61,250 cubic feet in 1883-84 to 33,120 cubic feet in the present year. This quite corresponds to the decrease in fellings by direct agency, and the explanation is the same in both cases, *viz.*, the discontinuance of work by Government agency in the Kumaun, Garhwál, and Ganges divisions in favour of private enterprise, and the stoppage of the supply of timber to the head works of the main Ganges Canal.

The hill divisions of Naini Tal and Ránikhet, which worked mainly under the old system have continued to meet all the demands made upon them for building timber and fuel for the settlements, and for fuel for the troops.

In "other produce" the only noticeable decrease is in bamboos, and this occurs in the Lalitpur Division, where, however, the supply has been equal to the demand. As there were no Government fellings, so there was no outturn by Government agency in the Kumaun and Garhwál Divisions. In the Ganges Division 396 cubic feet of timber were prepared from the 132 box trees, which were felled in the Kelsu portion of the Bhagirathi forests. The wood was sent to Messrs. Churchill and Sim, London, *viâ* Mussooree, Saháranpur, and Karachi. The memo. of cost is as follows :—

	Rs.	a.	p.
Carriage of 318 pieces of box-wood=375 maunds from Rajpur to Saháranpur,	164	1	0
Railway freight to Karachi	720	11	0
Shipping charges from Karachi to London	462	12	3
Total ...	1,347	8	3

The cost of conveying the wood from the forest to Rajpur has not yet been reported by the Divisional Officer, nor has any intimation of its sale been received up to date from Messrs. Churchill and Sim.

76. C.—Timber and other produce received from the forests in sale depôts (Form No. 60.)

The following abstract shows the quantities for 1883-84 and 1884-85 :—

Timber.

1883-84.	Number.	c. ft.	1884-85.	Number.	c. ft.
Sál sleepers	10	13	Chir karis	3,970	6,639
„ karis	14,345	25,320	„ planks	27,329	13,244
Sein „	8,941	15,544	Miscellaneous ballis	5,224	5,980
Chir „	1,929	3,342	Ditto pieces... ...	3,281	976
Jamun „	1,146	1,929			
Ash „	1	1			
Kokat „	3,114	5,036			
Sein planks	11	13			
Chir „	15,949	8,334			
Ash „	51	34			
Sál joras...	145	220			
Chir ballis	27	18			
Miscellaneous	7,689	6,844			
Total ...	53,359	67,189	Total ...	38,804	26,839

Other produce.

1883-84.		1884-85.	
Firewood	74,156 Mds.	Firewood	64,783 Mds.
Charcoal	1,019 „	Charcoal	1,298 „
Bamboos	412,338 No.	Bamboos	341,538 No.
Kiras	8,252 „	Kiras	1,827 „
Kurias	59,343 „	Kurias	4[illegible],752 „
Hides	2 „	Baskets	400 „
Lime	88 Mds.		

Here again the timber receipts have fallen from 67,139 cubic feet to 26,839 cubic feet, and correspond, as would be expected, to the decrease in the trees felled by Government agency and the outturn from them.

The receipts under "other produce," with the exception of bamboos, in which there is a decrease of some 70,000, the whole of which occurs in the Lalitpur Division, are very much the same as those of the last two years. Less bamboos were brought to depôt in the Lalitpur Division, because a lesser number were cut, owing, as the Deputy Commissioner explains, both to the opening of certain forests in the Saugor District which were closed up to the end of 1882, and to measures having been taken for the prevention of possible overcutting.

77. D.—Sales of timber and other produce cut and collected by Government agency (Form No. 61).

These are shown in the following abstract for the past and present year:—

Timber.

1883-84.			1884-85.		
Description.	Number.	Cubic feet.	Description.	Number.	Cubic feet.
Sál logs	137	6,227	Sál logs	376	22,154
„ sleepers ...	10,000	13,333	„ sleepers ...	345	527
„ Karis	19,143	32,531	„ karis ...	18,977	32,705
Haldu „	800	1,333	Seiu „	1,001	2,728
Sein „	11,177	18,738	Dhauri „	2	3
Jamun „	2,029	3,655	Chir „	2,969	5,116
Chir „	5,227	10,122	Sein planks ...	4	4
Kokat „	3,114	5,036	Chir „ ...	16,051	8,131
Ash „	5	3	Sál joras	42	64
Sein planks ...	50	55	„ slabs	660	...
Chir „	16,401	9,223	Miscellaneous ...	7,631	6,365
Ash „	51	34			
Sál joras	104	159			
Chir balls, &c. ...	112	76			
Miscellaneous ...	7,664	5,759			
	Depôt.	105,384		Depôt.	77,817
Add local sales ...	26,393	48,656	Add local sales ...	7,464	5,897
Total ...	109,427	154,040	Total ...	85,522	83,714

Other produce.

Firewood	91,912	Mds.	Firewood	100,156	Mds.
Charcoal	4,164	„	Charcoal	1,006	„
Bamboos	867,254	No.	Bamboos	672,254	No.
Kiras	4,657	„	Kiras	1,728	„
Kurias	145,352	„	Kurias	233,014	„
Hides	4	„	Hide	1	„
Lime	2,140	Mds.	Baskets	400	„
Mahua	127	„	Mahua	214	Mds.
			Grass	26	„

Showing a decrease in sales of timber of 70,326 cubic feet. But of the 83,714 feet of timber sold during the year, 58,185 feet came from the Ramnagar and Chorgalia depôts of the Kumaun Division from the stock remaining in hand at the close of the year 1883-84. The sales from timber received in depôts during the year itself thus amount to only some 25,519 feet and a reference to C. Timber and other produce received from forests in sale depôts show that nearly the whole of the timber so received was disposed of during the year. It also show that the supply has not fallen short of the demand.

Amongst "other produce" the decrease again occurs in bamboos, and the reason is given under C. The whole of the decrease is in the Lalitpur Division.

78. E.—Account of timber and other produce cut and collected by Government agency and brought to sale depôts or sold locally (Form 62).

Taking the chief articles of produce, *viz.*, timber, firewood, and charcoal, and bamboos the account balances as shown in the following abstract from the form :—

Balance-sheet of timber and other produce cut and collected by Government agency, abstract from Form No. 62.

Headings.	Produce.			Headings.	Produce.		
	Timber.	Firewood and charcoal	Bamboos numbers.		Timber.	Firewood and charcoal.	Bamboos numbers.
	c. ft.	mds.			c. ft.	mds.	
Balance at commencement of the year.	75,892	17,599	60,288	Removed by purchasers from depôts.	77,817	75,205	3,16,783
Received from forests in depôts	26,839	66,081	3,41,538	Sold locally ...	5,897	25,957	355,471
Received from forests and sold locally.	5,897	27,957	3,55,471	Used by the department.	1,496	...	...
Received by conversion in depôts	1,886	...	...	Transferred to other sale depôts.	1,455	...	1,000
Received by transfer from sale depôts.	1,455	...	1,000	Converted in depôts,	3,741	...	...
				Lost or written off ...	111	1,102	600
				Balance at the close of the year.	*21,452	7,378	84,443
Totals ...	111,969	109,637	758,297	Totals ...	111,969	109,637	758,297

Full details are given in Appendix A, which is one of the statements prescribed by the Local Government in their letter No. 37, dated the 19th January, 1884.

The abstract at the foot of the appendix shows that the value of produce sold locally was Rs. 14,889, as compared with Rs. 23,755 during the previous year, the value of produce sold from depôts, Rs. 95,605, as compared with Rs. 1,26,440 in the previous year, and that the value of the stock at the close of the year was Rs. 19,627, compared with Rs. 85,756 at the commencement of the year. Difference against the year, Rs. 66,129.

79. F.—Timber and other produce sold to Public Departments from depôts (Form No. 64).

The Public Works Department, Provincial Works, Naini Tal Sub-Division, purchased 720 cubic feet of timber, scantlings, and planks, to the value of Rs. 517, and the Public Works Department, Military Works, Naini Tal Sub-Division, 481 feet of timber, value Rs. 324.

The Commissariat Department at Naini Tal and Ránikhet were supplied with 25,862 and 72,515 maunds of firewood, respectively, for the use of the troops at those stations ; the amount of revenue credited to the department being Rs. 33,847. The profit on these transactions is estimated at about Rs. 11,000. The supplying divisions were Naini Tal and Ránikhet.

2.—Removal of produce by purchasers.

80. Annual Form No. 63 shows the timber and other produce cut, collected and removed from the forests by consumers or purchasers, or by private in contradistinction to departmental agency.

It also shows the value of the traffic. In the following statement the abstracts at the foot of Form No. 63 for the past and present year are reproduced :—

Timber.

1883-84.			1884-85.		
Description of timber.	Cubic feet sold.	Value.	Description of timber.	Cubic feet sold.	Value.
		Rs.			Rs.
Sal	313,289	177,753	Sál	323,661	167,897
Haldu	60,056	14,270	Haldu and dhouri ...	60,711	15,886
Sein	16,424	4,582	Sem	41,405	10,842
Chir	19,887	1,756	Chir	14,266	2,119
Jamun	56	14	Jamun	2,626	458
Sisham and kokat ...	79,940	11,505	Sisham and kokat ...	23,207	5,741
Tún	6,753	2,125	Tún	1,790	563
Deodar	55,440	14,034	Deodar	107,692	32,672
Sandan	13,494	4,815	Sandan	11,418	3,631
Alder	135	17	Alder	112	7
Oak	113	9	Oak	484	37
Khair	27,528	10,676	Khair	4,061	1,513
Miscellaneous	11,622	715	Miscellaneous	22,278	2,251
Total ...	604,485	242,271	Total ...	613,704	243,612

Other produce.

1883-84.			1884-85.		
Description of produce.	Quantity sold.	Value.	Description of produce.	Quantity sold.	Value.
		Rs.			Rs.
Charpoys ... ... No	287	18	Charpoys ... ... No.	204	13
Kurias ... ... ,,	203,612	510	Kurias ... ... ,,	98,284	249
Firewood ... Mds.	223,178	7,695	Firewood ... Mds.	1,62,241	6,940
Ditto ... by tickets,	66,560	1,664	Ditto ... by tickets,	73,800	1,845
Ditto ... by contract,	...	414	Ditto ... by contract,	...	914
Charcoal ... Mds	21,520	9,823	Received in compensation for lopping, &c.	...	81
Ditto .. by contract,	...	50	Charcoal ... Mds	19,505	2,403
Ghingaru sticks ...	...	20	Ditto ... by contract,	...	58
Bamboos ... ... No.	21,510,235	80,147	Bamboos ... ... No.	15,585,580	63,678
Ditto ... by contract,	...	160	Ditto ... by contract,	...	174
Ringal head-loads ...	157	19	Ringal head-loads ...	161	20
Grazing	...	20,462	Grazing	...	20,799
Other minor produce ...	...	30,491	Other minor produce ...	...	28,265
Totals ...	Various	144,480	Total ...	Various	125,489
Add for timber ...	Ditto	242,271	Add for timber ...	...	243,612
Total revenue under II ...	...	386,751	Total revenue under II ...	...	369,051

81. The results are very much on a par with last year's ; 613,704 cubic feet of timber of sorts sold in the present year for Rs. 2,43,612, or at the rate of 6 annas and 4 pies per cubic foot, against 604,485 feet last year for Rs. 2,42,271=6 annas 5 pies per foot. Sál fetched 9 pies per cubic foot less than it did last year, the rates being 9 annas and 1 pie in 1883-84, and 8 annas and 4 pies per foot in 1884-85.

The royalty on dry sál is much less than the royalty on green sál, and the decrease in the average rate for the year is due to over 30,000 cubic feet more of dry sál being exported during this year than last ; the unusual drought of the winter and summer of 1883-84 having killed a large number of trees.

The increase in sale of "sein" is very satisfactory, and is due to the excellent arrangements made in the Garhwál Division by Mr. Bagshawe. The decrease in sale of "khair" is due to the introduction of the Iron Sugar Mills.

Amongst "other produce" the only article in which there is any noticeable difference is bamboos, and under that head there is a falling off of Rs. 16,455 as compared with the previous year.

82. The following table shows the amount and value of timber exported by purchasers during 1883-84 and 1884-85 from each division :—

Divisions.	1883-84.					1884-85.				
	Sál.	Deodar.	Other kinds.	Total of all kinds.	Amount of revenue.	Sál.	Deodar.	Other kinds.	Total of all kinds.	Amount of revenue.
	c. ft.	c. ft.	c. ft.	c. ft.	Rs.	c. ft.	c. ft	c. ft.	c. ft.	Rs.
Naini Tal ...	35	...	3,660	3,695	522	...	...	992	992	91
Ránikhet ...	...	...	17,689	17,689	1,349	...	...	7,900	7,900	916
Kumaun ...	169,207	...	107,330	276,537	126,871	173,623	...	88,567	262,190	1,13,139
Garhwál ...	135,558	...	74,803	210,361	90,773	143,864	...	56,637	200,501	88,258
Ganges ...	8,439	55,440	22,140	86,019	22,114	6,174	107,692	23,218	137,084	40,354
Jhánsi ...	...	...	113	113	9	...	...	21	21	3
Lalitpur ...	...	...	10,071	10,071	428	...	...	5,016	5,016	406
Bánda ...		By contract.			205		By contract.			445
Total ...	313,239	55,440	235,806	604,485	2,42,271	323,661	107,692	182,351	613,704	2,43,612

83. Putting the figures in the three preceding statements into the form ordered in paragraph 19 of the Local Government review, the results of the private enterprise system for the last two years compare as follows :—

Produce.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber (cubic feet)	604,385	2,42,271	613,704	2,43,612
Bamboos (scores)	10,75,511	80,307	779,279	63,852
Firewood (maunds)	289,738	9,773	236,041	9,780
Charcoal (ditto)	21,526	2,873	19,505	2,461
Minor produce (Rupees)	...	20,469	...	20,799
Grazing dues (ditto)	...	31,058	...	28,547
Total ...	...	3,86,751	...	3,69,051

84. The above figures show that the private enterprise system has fully maintained its position during the year under review. The falling off in revenue from bamboos of Rs. 16,455 as compared with the receipts of the previous year (which, by the bye, were higher than usual) was fully expected. It was not on account of a less demand, nor, it is believed, of a diminished supply, but was due to the precautionary measures which were taken to prevent a continuance of the overcutting which had been observed during the winter of 1883-84, and was noticed in paragraph 13 of last year's report.

The average rate per score was 15·73 pie in 1884-85, against 14·33 pie in 1883-84, the higher average being due to the introduction of a new list of rates which came into force at the commencement of the working season, and is a vast improvement on the old list both on account of its greater simplicity and of its inducement to exporters to remove the best shoots only, and not cut the immature and inferior shoots. Both of these subjects will be more fully noticed in Chapter VI.

3.—Free grants of the year.

85. The following statements show the free grants of the years 1883-84 and 1884-85 in trees, and the estimated value of the grants :—

1883-84.

Divisions.	Sál.		Deodar.		Sisham.		Tún.		Chir.		Oak.		Miscellaneous.		Total.		Value.
	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft	Rs.
Naini Tal	...	...	...	...	...	...	...	...	114	1,954	142	2,660	1,677	9,166	2,133	13,720	1,264
Ránikhet	...	...	...	...	...	...	...	...	7,983	98,442	557	2,226	6	24	8,546	1,00,694	8,308
Kumaun	459	17,266	...	...	3	60	...	...	...	...	...	...	244	3,892	706	21,218	17,570
Garhwál	12	223	...	...	...	...	...	...	...	...	...	...	4	328	16	551	172
Ganges	...	...	131	4,585	...	...	29	870	...	...	...	...	...	...	160	5,455	1,026
Jhánsi	...	...	...	...	...	...	...	...	...	...	...	...	29	87	29	87	5
Lalitpur	...	...	...	...	...	...	...	...	...	...	...	...	749	1,124	749	1,124	187
Total ...	471	17,489	131	4,585	3	60	29	870	8,097	100,396	699	4,888	2,909	14,561	12,339	1,42,949	28,632

1884-85.

Divisions.	Sál.		Deodar.		Sisham.		Tún.		Chir.		Oak.		Miscellaneous.		Total.		Value.
	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft	Rs.
Naini Tál	...	...	...	...	...	...	...	...	59	730	...	...	...	...	59	730	185
Ránikhet	...	...	...	...	...	...	...	...	6,287	63,430	403	2,015	24	120	6,714	65,565	7,286
Kumaun	1,953	24,649	...	...	10	78	...	...	...	...	...	...	149	2,646	2,112	27,373	21,994
Garhwál	2	79	...	...	2	20	...	...	...	...	...	...	1	4	5	103	47
Ganges	12	224	171	16,458	...	...	1	15	...	...	...	...	25	395	209	17,092	4,293
Jhánsi	...	...	...	...	...	...	...	...	...	...	...	...	26	78	26	78	7
Lalitpur	...	...	...	...	...	...	...	...	...	...	...	...	545	800	545	800	45
Total ...	1,967	24,952	171	16,458	12	98	1	15	6,346	64,160	403	2,015	770	4,043	9,670	1,11,741	33,857

According to these statements the free grants were, in 1883-84, 12,339 trees, containing 142,849 cubic feet, worth Rs. 28,53½, and in 1884-85, 9,670 trees, containing 111,741 cubic feet, value Rs. 33,857.

In the Naini Tal and Ránikhet divisions the values are calculated at the rates fixed by Government for trees according to girth measurements.

In the other divisions the values are calculated at the current selling rates.

Naini Tal Division.—Of the 59 trees given away in this division, 54 were given to village right-holders, and five to the Public Works Department for repairs to road bridges.

Ranikhet Division.—All given to village right-holders.

Kumaun Division—The following are the particulars of the grants :—

	Sál trees.	C ft.	Value Rs.
To H. H. the Nawab of Rampúr ...	200	13,911	14,574
„ Villagers	1,753	10,738	6,876
	Shisham.		
„ Ditto	10	76	544
	Miscellaneous		
„ Ditto	149	2,646	
Total ...	2,112	27,373	21,994

Besides the above dry fallen timber as follows was given to the Tharus :—

	C. ft.	Value. Rs.
Sál	2,310	678
Shisham	9,187	1,735
Katrukh	4,696	711
Sandun and tún	30	9
Total ...	16,032	3,073

Jhansi Division.—Besides the trees shown in the statement, there were given to villagers 2,600 kuriahs worth Rs. 13.

Lalitpur Division.—Firewood to the value of Rs. 28 and kuriahs worth Rs. 2 were also given to right-holders in addition to the trees shown on the statement.

Banda Division—There were no free grants in this division.

The total value of the free grants of the year amounts to Rs. 36,937. In the previous year it was Rs. 41,439.

4.—Summary of produce removed from the Forests

86. Appendix B contains a full account of the trees felled during the year. The abstract with which it concludes gives the following particulars :—

Selection fellings.

	No.	c. ft
Chir trees	7,853	121,672
Oak „	711	19,652
Sál „	8,226	148,454
Seln „	1,684	54,989
Sisham „	10	78
Tun „	1	15
Deodar „	171	16,458
Box „	132	528
Miscellaneous	9,850	96,074
Total ...	29,238	458,820
Against ... ... in 1883 84.	58,580 trees	592,360 cubic feet

			Thinnings.				No.	C. ft.	
Gál trees	...	...	...	...	...		450	2,343	
Miscellaneous	...	...	...	...	...		8,760	8,945	
					Total	...	9,210	11,288	
Against in 1883-84.	...	...	...	...	...		397	trees 4,119	cubic feet
			Clearances.						
Chir trees	...	...	...	...	...		663	2,427	
Oak	...	...	...	...	...		1	40	
Miscellaneous	...	...	...	...	...		11	25	
					Total	...	675	2,467	
Compared with cubic feet in 1883-84.		...	...	...			7,765 trees	66,928	
Total fellings		...	...	...			39,123 trees	472,595	
Compared with in 1883-84		...	...	...			66,742 trees	663,407	cubic feet

But in addition to this 286,992 cubic feet of timber from dry fallen trees was removed by exporters during the year, giving a total yield of 759,587 cubic feet of timber compared with (including timber from dry fallen trees) 907,052 cubic feet in 1883-84.

87. Every division shows a decrease in fellings, but the noticeable decreases occur in the Ránikhet, Kamaun, Garhwál, and Ganges divisions.

Ranikhet Division —Less trees were given to village right-holders, and the trees taken by purchasers were much smaller.

Kumaun Division —There were no fellings by departmental agency this year.

Garhwal Division —The demand for Khair timber is now almost *nil* owing to the introduction of iron sugar mills, paragraph 111 of Annual Report for 1883-84.

Ganges Division —The Canal Department took no poles, &c., this year for the head works of the main Ganges Canal.

88. Annual forms 61 and 63 give the actual sales of the year.

Summarizing them, the sale were as follows :—

						C. ft.
Timber from depôts	...	...	...	...	...	77,817
" sold locally	...	...	...	...	...	5,897
" removed direct by exporters			...	...	...	6,13,704
				Total	...	697,418
						Maunds.
Firewood from depôts		...	...	...	...	74,200
" sold locally		...	...	...	...	25,956
" removed direct by exporters			...	...	...	236,041
				Total	..	336,197
Charcoal from depots	...	...	...	...	...	1,005
" sold locally	...	...	...	...	...	1
removed direct by exporters			...	...	...	19,505
				Total	...	20,511
						Scores.
Bamboos from depots		...	...	...	...	15,839
" sold locally		...	...	...	...	17,773
" removed direct by exporters			...	...	...	779,279
				Total	...	812,891

Comparing those with the sales of 1883-84, the differences are as follows

	1883-84.	1884-85.		Differences.
	c. ft.	c. ft.		c. ft.
Timber from depôts	105,384	77,817	less	27,567
„ locally	48,656	5,897	„	42,759
„ by private enterprise ...	604,485	613,704	more	9,219
Totals ...	758,525	697,418	less	61,107
	Maunds.	Maunds.		Maunds.
Firewood from depôts ...	70,885	74,200	more	3,315
„ locally	21,627	25,956	„	4,929
„ by private enterprise ...	223,178	236,041	„	12,863
Totals ...	315,090	336,197	more	21,107
	Maunds.			
Charcoal from depôts ...	4,164	1,005	less	3,159
„ locally	...	1	more	1
„ by private enterprise ...	21,526	19,505	less	2,021
Totals ...	25,690	20,511	less	5,179
	Scores.	Scores.		Scores.
Bamboos from depôts ...	17,919	15,839	less	2,080
„ locally	25,442	17,773	„	7,669
„ by local enterprise ...	10,75,511	779,279	„	296,232
Totals ...	11,18,872	812,891	less	305,981

Whilst the sale of timber prepared by Government agency was 70,326 cubic feet less than in 1883-84, the export under the private agency system shows an increase of 9,219 cubic feet.

The reason for the diminution in sales under the direct system is given under heads A, B, C, and D of this chapter.

89. Appendix C shows the yield of the year itself as estimated by the Divisional Officers. It is one of the statements prescribed by the Local Government.

Reducing the entire yield as shown in this statement to cubic feet, the results compared with last year's, are as follows :—

	1883-84.	1884-85.
	c. ft.	c. ft.
Timber	719,212	659,486
Poles	50,847 }	51,757
Saplings	3,047 }	
Firewood	10,26,852	651,612
Charcoal	20,128	166,824
Totals ...	18,20,086	15,29,679

giving a yield per acre of about 1½ cubic feet in 1884-85, and 2 cubic feet in 1883-84.

The value of the yield of the year itself as estimated by the Divisional Officers is Rs. 4,58,776, whilst the revenue actually realized was Rs. 4,83,737 (annual form 53). The explanation is that each year is more or less indebted to the preceding year for some of its revenue from the sale of depôt stock, and that the financial year ends two months before the close of the working season.

CHAPTER V.

FINANCIAL RESULTS.

90. The annual forms 53, 54, 55, 56, and 57 appended to the report give the financial figures of the year in full detail.

91 In the following statement the receipts, expenditure, surplus, and percentage of expenditure to receipts are shown for the last four years —

	1881 82	1882-83	1883-84.	1884 85
Receipts	504,037	414,003	534 280	483,737
Expenditure	304 893	286,648	265 892	261 912
Surplus	199,144	127,355	268,388	221,825
Percentage of expenditure to receipts	60 49	69 21	49 76	54 35

or, for 1884-85, a proportion of surplus to gross revenue in per cent. of 45·65 The financial results, though not so good as those of last year, compare very favourably with those of any other year since 1879-80, when these forests became the Central Circle.

92. The following statement exhibits the receipts and expenditure in each division compared with the figures of the previous year :—

Division.	*Receipts*		*Differences*		*Expenditure*		*Differences.*	
	1883-84	1884-85.	More	Less	1883-84.	1884-85	More.	Less
	Rs	Rs.	Rs	Rs	Rs	Rs.	Rs	Rs
Direction ..	2	...	...	2	25 537	28,778	3,241	...
Naini Tal ...	28,625	26 126	.	2,499	27,057	28 971	1 914	..
Ránikhet ...	28,149	28,946	797		27,459	29,301	1,842	
Kumaun ...	2,38 178	2,12,255	...	25,923	76,777	62,400		14,377
Garhwál ...	1,35 626	1,16 243	...	19,383	58,862	63 213	4,351	..
Ganges ...	77,123	77,254	69		38 923	36 844	.	1,179
Jhansi ..	7,673	5,807	...	1,866	3 319	3,621	302	...
Lalitpur ...	10,959	9,490		1,469	5,512	5,406	...	106
Banda ...	7,745	7,616	...	129	3,346	3,378	32	..
Total ...	5,34,280	4,83,737	797	51,340	2,65,892	2,61,912	11,662	15 662

showing a decrease in revenue of Rs. 50,543, and a decrease in expenditure of Rs 3,980, or a net decrease against the year of Rs. 46,563

93. In the following table the receipts and charges are given for purposes of inter-divisional comparison —

Division	Receipts.	Charges	Surplus	Deficit
	Rs.	Rs	Rs	Rs
Direction		28,778	...	28,778
Naini Tal	26,126	28,971	...	2,845
Ránikhet	28,946	29,301	...	355
Kumaun	2,12,255	62,400	149,855	...
Garhwal	1,16,243	63 213	53 030	...
Ganges	77,254	36,844	40,410	...
Jhansi	5,807	3,621	2,186	
Lalitpur	9,490	5,406	4,084	...
Banda	7,616	3,378	4,238	
Total ..	4,83,737	2,61,912	2 53,803	31,978

The Kumaun, Garhwál, and Ganges divisions again show very good surpluses, and so do also the divisions under charge of the District Officers. The Naini Tal and Ranikhet divisions have been worked at a loss, but as they now form one division and their union has relieved the forests of the burden of the pay and travelling allowances of one Divisional Officer, a better result may be expected in future.

94. Arranged under the main heads of receipts and charges, the financial results are (*vide* Form No. 57) as follow :—

Headings.	Receipts		Charges.	
	Amount.	Budget heads.	Amount.	Budget heads.
	Rs		Rs.	
I.—Departmental operations.	1,09,456	I ...	69,773	A $\left(I+V+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3} \right)+\frac{B}{3}+$ Direction Division, Rs 9,593.
II.—Other revenue ...	3,74,281	II, III, IV. and V	1,07,028	A $\left(II+III+IV+\frac{VII}{3}+\frac{IX}{3} \right)+\frac{B}{3}+$ Direction Division Rs 9,593.
III.—Formation, protection, and improvement of the forests.	...	...	85,111	A $\left(\frac{VI}{2}+\frac{VII}{3}+VIII+\frac{IX}{3} \right)+\frac{B}{3}+$ Direction Division, Rs. 9,592.
Total ...	4,83,737	...	2,61,912	

Showing a surplus of Rs. 39,683 on departmental operations, a surplus of Rs. 2,67,253 on other revenue, and an expenditure of Rs. 85,111 on the formation, protection, and improvement of the forests.

95. The figures compare as follows with those of the previous year :—

	1883-84.		1884-85.	
	Surplus.	Deficit	Surplus	Deficit
	Rs.		Rs	
I.—Departmental timber operations ...	24,808	...	39,683	...
II.—Other revenue	3,25,096	...	2,67,253	..
III.—Formation, protection, &c., of the forests,	...	81,516	...	85,111
Total ...	3,49,904	...	3,06,936	...

Departmental operations show a larger surplus than last year, but this is in some measure owing to the year being indebted to preceding years for some of its revenue under I. from sale of old depôt stock.

As to the surplus under head II. (Rs 2,67,253), the table under A, conservancy and works, shows that it was obtained at a cost to the department of Rs. 21,619.

96. The receipts, compared with those of the previous year, were derived from the following sources :—

Year.	Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers or purchasers.	Confiscated drift and waif wood.	Revenue from forests not managed by Government.	Miscellaneous.	Total.
	Rs	Rs.	Rs	Rs	Rs	Rs.
1883-84 ...	1,37,926	3,86,502	756	66	9,030	5,34,280
1884-85	1,09,456	3,69,051	587	148	4,495	4,83,737

97. The expenditure, compared with that of the previous year, under the main heads of (A) conservancy and works, and (B) establishments, is shown in the following tables :—

A.

Year.	I	II.	III	IV	V.	VI	VII	VIII	IX	X
	Timber and other produce removed from forests by Government agency	Timber and other produce removed from forests by consumers or purchasers.	Confiscated drift and waif wood.	Revenue from forests not managed by Government agency	Rent of leased forests and payment to shareholders.	Live stock, stores, tools, and plant.	Communications and buildings	Demarcation, improvement, and extension of forests.	Miscellaneous.	Total.
1883-84 ...	51,282	19,464	5	...	4,424	11,263	40,582	24 096	1,432	152,548
1884-85 ...	36,421	21,619	...	...	4,591	9,257	40,312	25,910	657	138,766

B.

Year.	I.	II	III	Total.
	Salaries.	Travelling allowances.	Contingencies.	
	Rs	Rs.	Rs.	Rs.
1883-84	98,900	10 009	4,435	1,13,344
1884-85	1,05,520	12,417	5,209	1,23,146

98. The value of timber, fuel, &c., and live stock at

	Rs.
The commencement of the year was (*vide* Form No. 65)	1,97,705
And at the close of the year (ditto)	1,21,054
Balance against the year	76,651
The outstandings due to the Department at the close of the year amounted to (*vide* Form No. 55)...	12,279
The outstandings due by the Department at the close of the year were (*vide* Form No. 55)	*Nil.*
And there was a balance due to the Department at the close of the year on account of revenue of (Form No. 56)	271

The value of the year's transactions was :—

Cash surplus (Form No. 53)	2,21,825
Difference of live and dead stock against the year (Form No. 65) ...	76,651
Balance ...	1,45,174
Add outstandings due to the Department, minus outstandings due by the Department	12,550
Value of the year's transactions ...	1,57,724

99. Here follows a brief explanation of the differences in receipts and expenditure between the years 1883-84 and 1884-85 as shown in the three tables next above.

Receipts.—There is a decrease of Rs. 28,470 in sales of timber, &c., removed from the forests by Government agency. It is made up of decreases of Rs. 12,000, 5,000, and 9,000 in the Kumaun, Garhwál, and Ganges divisions respectively. In the Garhwál and Ganges divisions the whole of the stock in depôts was disposed of in 1883-84, and no timber operations were undertaken this year by Government agency. In the Kumaun Division a good deal of the old depôt stock was sold, very little remains in hand now, and no timber was prepared by direct agency during the year,

Under "timber, &c., removed from the forests by consumers or purchasers," there is a decrease of Rs. 17,451. It is accounted for thus :—

					Rs.
Decrease in the Kumaun Division	...	...	...	...	13,687
Ditto Garhwál ditto	...	...	...	...	12,518
Increase in the Ganges Division	...	...	...	...	10,000

There are some slight increases and decreases in the other divisions which make up the difference. In the Kumaun Division the decrease occurs under II (*a*) timber, in the Garhwál Division Rs. 10,000 of the decrease is in II (*c*) bamboos, and Rs. 2,000 under II (*a*) whilst the increase of Rs. 10,000 in the Ganges Division is the net result of an increase of Rs. 18,000 under II (*a*) timber, diminished by a decrease of Rs. 7,500 under II (*c*) bamboos, added to a small decrease of Rs. 500 under II (*e*) other minor produce.

The increase under II (*a*) of the Ganges Division is the Government share of the sale proceeds of deodar sleepers sold by Mr. Wilson. The decrease under II (*c*) in the Garhwál and Ganges divisions is no doubt the result of the restrictive measures adopted to prevent the overcutting of bamboos. As the object of these measures is better understood, the revenue may be expected to rise again. The decrease in the Kumaun Division under II (*a*) is due to a less demand for sál timber in the forests east of Haldwani. This is only the second year of the private enterprise system in these eastern forests, and we are not sure of the reason why there was less demand in 1884-85 than in 1883-84. The working season is shorter there than in the forests further westward, and perhaps the falling off may have been due to a few cases of cholera in the early part of the season having frightened the merchants and workmen, and prevented their coming up to the forests as early as usual, or it may have been due to more sál timber having been cut in the Nepal forests than during the previous year. We are opening out these eastern forests more and more every year by improving the old roads and making new ones, and in a few years I expect a very considerable increase in revenue from them and a steadier demand for all kinds of timber and other forest produce.

Decrease under miscellaneous.—The receipts under this head are necessarily fluctuating.

Expenditure A.—Under "I. Timber and other produce removed from the forests by Government agency" there is a decrease of Rs. 14,861.

The decrease is made up of a decrease of Rs. 12,500 in the Kumaun Division, added to a decrease of Rs. 5,272 in the Ganges Division, diminished by an increase of Rs. 4,447 in the Naini Tal Division and small increases elsewhere. The decreases in the Kumaun and Ganges divisions are consequent on the discontinuance of timber operations by Government agency in favour of the private enterprise system, the increase in Naini Tal is most of it under head I (*a*) timber prepared by Government agency to meet the requirements of the settlement.

The differences under the other heads are slight and call for no remarks. The decrease in receipts (Rs. 50,000) is proportionate to the Rs. 13,800 decrease in expenditure A.

Expenditure B.—The increase under I. and II. has been caused by the Circle having had to bear the pay and travelling allowances of a superior officer of the working plan's branch for five months of the year, to Mr. Bryant's promotion from 3rd to 1st grade Assistant Conservator on his passing by the higher standard in the vernacular, and to the fact that since Major Campbell's return from furlough there was a supernumerary officer in the Circle, Mr. Bryant having been transferred to this circle when Major Campbell proceeded on furlough

100. **Naini Tal Division**—Form No. 57 shows the following figures :—

	Departmental operations	Other revenue.	Formation, &c	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	23,800	2,826	...	26,126
Charges	21,862	3,346	4,263	28,971
Surplus	1,938	...	...	...
Deficit	...	520	4,263	2,845

Showing a surplus of Rs. 1,938 in departmental operations, a deficit of Rs. 520 in other revenue, and an expenditure of Rs. 4,263 in the formation, protection, and improvement of the forests, and a deficit of Rs. 2,845 in the working of the whole division during the year.

The amount of outstandings due to the division at the close of the year was Rs. 321. There was nothing due by the division.

	Rs
The value of timber, live and dead stock at the commencement of the year was	13,534
And at the close of the year	17,407
Balance in favour of the year ...	3,873

101 **Ranikhet Divisions.**—The results are as follows :—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs
Receipts	26,324	2,621	...	28,946
Charges	17,458	4,075	7,768	29,301
Surplus	8,866	...	...	...
Deficit	...	1,454	7,768	355

Showing a surplus of Rs 8,866 on departmental operations, and a deficit of Rs. 1,454 in other revenue, and an expenditure of Rs. 7,768 on the formation, protection, and improvement of the forests, and a deficit of Rs. 355 in the working of the division as a whole.

The amount of outstandings due to the division at the close of the year was Rs. 1,000; there were no outstandings due by the division.

	Rs.
The value of timber, live, and dead stock at the commencement of the year was	11,774
And at the close of the year	7,732
Balance against the year ...	4,042

102. **Kumaun Division**—Form No. 57 shows the following results :—

	Departmental operations	Other revenue.	Formation, &c.	Total.
	Rs	Rs.	Rs.	Rs.
Receipts	53,111	1,59,144	...	2,12,255
Charges	15,277	23,605	23,518	62,400
Surplus	37,834	135,539	...	1,49,855
Deficit	...	...	23,518	. .

Showing a surplus of Rs. 37,834 on departmental operations, a surplus of Rs. 1,35,539 in other revenue, an expenditure of Rs. 23,518 in the formation, protection, and improvement of the forests, and a surplus of Rs. 1,49,855 in the working of the division as a whole.

	Rs.
The amount of outsandings due to the division at the close of the year was	1,418
The amount of outstandings due by the division was	Nil
The value of timber, live, and dead stock at the commencement of the year was	105,363
And at the close of the year	37,708
Balance against the year ...	67,655

103. **Garhwal Division.**—The results in this division are as follows:-

	Departmental operations.	Other revenue.	Formation, &c.	Total.
		Rs.	Rs.	Rs.
Receipts	...	1,16,243	...	1,16,243
Charges	...	38,283	24,930	63,213
Surplus	...	77,960	..	53,030
Deficit	...	...	24,930	...

There were no departmental operations undertaken and no expenditure incurred on that account during the year.

There is a surplus of Rs. 77,960 on other revenue, and an expenditure of Rs. 24,930 in the formation, protection, and improvement of the forests, and a surplus of Rs. 53,030 in the working of the division as a whole. The amount of outstandings due to the division at the close of the year was Rs. 7,203 ; there were no outstandings due by the division.

	Rs.
The value of live and dead stock at the commencement of the year was	18,865
And at the close of the year	23,425
Balance in favour of the year ...	4,560

104. **Ganges Division.**—Form No. 57 shows as follows:—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
		Rs.	Rs.	Rs.
Receipts	...	77,254	...	77,254
Charges	...	25,935	10,909	36,844
Surplus	...	51,319	...	40,410
Deficit	...	...	10,909	...

There were no departmental operations during the year. Under other revenue there is a surplus of Rs. 51,319, and an expenditure of Rs. 10,909 in the formation, protection, and improvement of the forests, and a surplus of Rs. 40,410 on the working of the division as a whole. The amount of outstandings due to the division at the close of the year was Rs. 2,174; there were no outstandings due by the division.

	Rs.
The value of live and dead stock at the commencement of the year was ...	33,405
And at the close of the year	19,901
Balance against the year	13,504

Rupees 13,476 of which sum represents the value of buildings situated in the forests which were leased from the Raja of Tehri, and which have gone with those forests at the termination of the lease which expired on the 1st May last.

105. **Jhansi Division.**—Form No. 57 shows the following results:—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	944	4,863	...	5,807
Charges	1,456	635	1,530	3,621
Surplus	...	4,228	...	2,186
Deficit	512	...	1,530	...

Showing a deficit of Rs. 512 on departmental operations, a surplus of Rs. 4,228 in other revenue, an expenditure of Rs. 1,530 on the formation, protection, and improvement of the forests, and a surplus of Rs. 2,186 on the working of the division as a whole.

The amount of outstandings due to the division at the close of the year was Rs. 160; there were no outstandings due by the division :—

	Rs.
The value of timber, live and dead stock at the commencement of the year was	935
And at the close of the year	587
Balance against the year ...	348

106. **Lalitpur Division.**—The figures in Form No. 57 are as follows :—

	Departmental operation...	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs
Receipts	3,883	5,607	...	9,490
Charges	2,797	817	1,792	5,406
Surplus	1,086	4,790	...	4,084
Deficit	...	...	1,792	...

giving surpluses of Rs. 1,086 and Rs. 4,790 under departmental operations and other revenue, and an expenditure of Rs. 1,792 on the formation, protection, and improvement of the forests, and a surplus of Rs. 4,084 on the working of the division as a whole.

The amount of outstandings due to the Department at the close of the year was Rs. 3; there were no outstandings due by the department.

	Rs.
The value of timber, live, and dead stock at the commencement of the year was	2,406
And at the close of the year	2,839
Balance in favour of the year ...	433

107. **Banda Division.**—The following are the financial results (Form No. 57):—

	Departmental operations.	Other revenue.	Formation, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Receipts	1,894	5,722	...	7,616
Charges	1,830	739	809	3,378
Surplus	64	4,983	...	4,238
Deficit	...	...	809	...

giving surpluses of Rs. 64 and Rs. 4,983 under departmental operations and other revenue, an expenditure of Rs. 809 in the formation, protection, and improvement of the forests, and a surplus of Rs. 4,238 in the working of the division as a whole.

The outstandings due to the division at the close of the year amounted to Rs. 1,150; the outstandings due by the division were *nil*.

	Rs.
The value of timber, live and dead stock, at the commencement of the year was	808
At the close of the year	840
Balance in favour of the year ...	32

108. As promised at the end of paragraph 109 of last year's report, I will now give a short comparison of the estimated profits on timber works in western Kumaun and the Ganges Division between the two systems of departmental agency and private enterprise.

Western Kumaun.

	c. ft.
Sál timber brought to depôt during the years 1882-83 and 1883-84 ...	50,914
	Rs.
Sale of 50,914 cubic feet at an average of Rs. 1-2-2 30 per cubic foot ...	57,888
(*N.B.*—Sixty-six thousand eight hundred and thirty-seven cubic feet sold for Rs. 75,993.)	
Deduct cost of preparing and bringing to depôt 50,914 cubic feet ...	23,656
Surplus	34,232

or an average profit of as. 10-9 per cubic foot.

Sál timber cut and exported by private enterprise during the year 1884-85 :—

					c. ft.
Exported by private agency	...	...	...	...	55,914
					Rs.
Revenue received from the above	...	...	...	...	41,767
Departmental expenditure ...	...	...	...	...	306
		Surplus	...	...	41,461

or an average profit of over as. 11-10 per cubic foot.

In the Ganges Division the net profit on 14,782 cubic feet of sein timber prepared departmentally and sold in 1883-84 was six annas per cubic foot.

The net profit on 3,797 cubic feet cut and exported by private enterprise during 1884-85 was seven annas per cubic foot.

CHAPTER VI.

GENERAL REMARKS.

109. Owing to the late rains and the unhealthiness of the early winter, the demand for timber and other forest produce was not so brisk as in 1883-84, and the export was somewhat delayed by the heavy winter rains.

But, notwithstanding this, combined with the decreases of over Rs. 9,000 for Khair, as compared with the previous year, consequent on the introduction of iron sugar mills, and of Rs. 16,500 for bamboos, owing to the restrictive measures described in the following paragraph, the financial results of the year were quite satisfactory. They were better than any year since 1879-80, except 1883-84, and that was as stated in paragraph 110 of last year's report, an exceptionally favourable year.

110. In paragraph 112 of last year's report it was stated that during his tour in February and March, 1884, the Inspector-General of Forests "noticed that in the Ganges, Garhwál, and western half of the Kumaun divisions the supply of bamboos was becoming rather a serious question, and that the clumps in the more accessible parts were considerablly over cut."

I also stated that "I saw more cases of overcutting and more destruction by wild elephants during the winter of 1883-84 than I had ever seen before, and this leads me to infer that the demand, combined with the amount consumed and destroyed by elephants, exceeds the supply in some places, and equals it in all others except in Eastern Kumaun, where there are extensive bamboo forests which have been very lightly worked hitherto."

In the same paragraph I also noted that, as a precaution against overcutting, "orders have been issued to hold all officers in charge of ranges and beats responsible that not less than four uninjured growing stems shall be left in every clump."

These orders came into force at the commencement of the past working season, say, 1st November, 1884, and at the same time a new schedule of royalty rates was issued with the two-fold object of (*i*) simplifying the levying of dues, (*ii*) inducing exporters to remove only the best shoots and not cut the small and immature shoots.

(*g*) *The order to leave not less than four uninjured growing stems in every clump.*

After so many years of perfectly unrestricted cutting it could not, of course, be expected that, over the enormous area of our bamboo forests, and amongst the several thousands of semi-civilised men who cut the bamboos, the new order would be rigidly attended to during the first year of its working.

Several cases of breach of the new rule were detected and reported by the subordinates, but so earnestly did the Divisional Officers insist on the order being enforced that one had to scramble up into the remote parts of the forests and search carefully

to find, here and there, a clump of less than five stems out of which a stem had been cut during the season. I was very much pleased with the improved condition of the bamboo forests, and the Divisional Officers agree with me in thinking that in another year or two the new order will be thoroughly established, and that it will have the desired effect of preventing the clumps being overcut.

The only other way to keep up a supply of bamboos is to close portions of the forests for fixed periods; but as a very large proportion of what are exported from our forests are *shoots of the year*, I think that, for this, and several other reasons, the system which we have adopted is far preferable.

The receipts from bamboos in the Kumaun, Garhwál and Ganges divisions during the last five years is shown in the following table :—

Divisions.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.
	Rs.	Rs.	Rs.	Rs.	Rs.
Kumaun	11,291	11,291	9,480	15,244	17,520
Garhwál	25,512	27,035	23,859	27,252	17,197
Ganges	27,442	36,643	35,572	36,862	28,399
Total ...	64,245	74,969	68 911	79,358	63,116

The greatest falling off was in the Garhwál Division, but it would have been proportionately large in the Ganges Division, but for the opening of a large block of forest which had been closed to bamboo cutting for the two previous years. In 1885-86 there will perhaps be a further falling off in revenue from bamboos; but after that I think it will rise rapidly and will soon come up to, and probably exceed, the average of former years.

The reason why the new order did not affect Kumaun is that the supply of bamboos in that division exceeds the demand, and consequently there has not as yet been any overcutting except, perhaps, a little in the outer ranges to the west of the river Kosi.

(*b.*)—*The new schedule of rates of royalty on bamboos which came into force on the 1st November*, 1884.

Formerly the royalty on bamboos was levied on the trade names, the principal of which were :—

Chanclu at Rs. 6 per 100 score.
Kanderu „ 9 „
Sarencha „ 12 „

There were no distinct specifications of the length and thickness of these bamboos, but it was an understood thing that a "Chanclu" was any bamboo which had its branches hacked off by a single blow of the axe from above the shoot and was otherwise carelessly prepared, whereas the branches of "Kanderu," "Sarencha," &c., were carefully pared off by upward cuts so as not to split the bark or injure the stem. A very large proportion of the bamboos exported were "Chanclu." For instance, out of 3,75,432 scores exported from the Garhwál Division in 1883-84, 2,37,633 scores were "Chanclu." So long as the supply far exceeded the demand (as it formerly did) there was no object in risking a check on trade by being very particular about specifying the length and thickness of the different classes, or by checking the wasteful process of making "Chanclu" at Rs. 6 per cent. score out of bamboos which were fit for "Kanderu" and "Sarencha" at Rs. 9 and Rs. 12 per hundred score. The demand for bamboos is very much the same as it always has been, but the number of wild elephants has increased enormously of late, and it was about three years ago that I first observed a likelihood of a strain upon our bamboo resources. After a searching inquiry into all the conditions of the trade, it became quite evident that, after

providing for reproduction (which has been done by the order to leave not less than four uninjured growing stems in every clump), the most important point was to place a heavy check on the cutting of "Chaneju." In 1883-84 we attempted this by the establishment of length and girth specifications for all classes of bamboos, but this was an utter failure and was very soon abolished.

A list of the new rates is given below. They have been in force during the whole of the past working season and have worked admirably. Although they have had the effect of increasing the rate per score from 14·33 pies in 1883-84 to 15·73 pies in 1884-85, the royalty has not really been increased at all, the increased average being due to the immature and inferior kinds having been left and only the better kinds exported, which is the very object we aimed at:—

Specifications adopted for each class of bamboos from 1st November, 1884.	Royalty per 100 score.			
	Rs.	a.	p.	
4 feet long, any girth	4	0	0	
10 " "	9	0	0	
12 " "	12	0	0	
15 " "	15	0	0	
20 " "	0	0	6	each
any length, any girth	0	1	0	"

Note.—A "Chaneju" was from 8 to 10 feet in length. By the new rates there is no inducement to cut them.

111. A khedda party was organized last winter by order of the Lieutenant-Governor, and the result was very satisfactory. It commenced operations about the middle of January, and by the first week in March had captured 44 wild elephants.

From reports received in June, 1885, there were then over 400 wild elephants in the forests along the foot of the Himalayas between the rivers Sarda and Jumna, which is double the number there were supposed to be in those forests some ten years ago, and it is no wonder that the bamboo forests were beginning to show signs of being overworked.

The fact of the herds being back in their usual haunts by June, shows that the previous winter's hunting has not disturbed them to any appreciable extent. There ought to be a khedda every winter until a sufficient panic has been created to drive considerable numbers across the Sarda into Nepál, for our forests are not extensive enough to feed 400 of these huge destructive brutes and meet the market demand for bamboos as well.

112. The Central Circle is particularly fortunate in having four such capital officers as Messrs. Brereton, Bagshawe, Braidwood, and Wilmot in charge of its four principal divisions, and they have all submitted favourable reports of their subordinates with one or two exceptions. Mr. Bryant was employed during the rains and autumn in inspecting the box-forests of Kumaun and British Garhwál. Scrambling about through these pathless forests in the rank vegetation during the rainy season could not have been very pleasant, but Mr. Bryant examined every box-forest he could hear of and wrote a clear and concise report of his work, which was forwarded to Government. Mr. Braidwood held charge of Conservator's office throughout the year in addition to his other duties. Great credit is due to Mr. Sheils, the head clerk, assisted by the subordinate clerks, for the excellent order in which the office has been kept ever since he became head clerk.

OFFICE OF CONSERVATOR OF FORESTS;
CENTRAL CIRCLE, N.-W. P. AND OUDH,
Naini Tal, the 17th July, 1885.

G. GREIG,
Conservator of Forests,
Central Circle, N.-W. P. and Oudh.

ANNUAL STATEMENTS.

ANNUAL FORM No. 49.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Area of Reserved Forests, 1884-85.

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1884.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March, 1885.		No. and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Kumaun Division...	Kumaun District.	Block No. I. ...	80,467	126	...	...	80,467	126	No additions or transfers during the year.	The areas are subject to correction on the completion of the survey by the Forest Survey Department.
		Ditto „ II. ...	10,937	17	...	...	10,937	17		
		Ditto „ III. ...	35,200	55	...	...	35,200	55		
		Ditto „ IV. ...	65,606	103	...	...	65,606	103		
		Ditto „ V. ...	8,960	14	...	...	8,960	14		
		Ditto „ VI. ...	1,47,520	230	...	...	1,47,520	230		
		Ditto „ VII. ...	43,520	68	...	...	43,520	68		
		Ditto „ VIII. ...	4,320	7	...	...	4,320	7		
		Ditto „ IX. ...	4,640	7	...	...	4,640	7		
		Ditto „ X. ...	5,440	8	...	...	5,440	8		
		Ditto „ XI. ...	320	1	...	...	320	1		
		Total ...	4,06,930	636	...	...	4,06,930	636		
Ranikhet ditto ...	Kumaun ...	Block No. XI. Rani Khet ...	4,480	7	...	...	4,480	7	Ditto ...	The area is subject to correction on the receipt of area statements from the Forest Survey Department.
Garhwal ditto ...	Garhwal ...	Block No. I. Patli un ...	1,52,000	238	...	...	1,52,000	238		
		Ditto „ II. Kotri Dun ...	1,15,520	180	...	...	1,15,520	180		
		Ditto „ VI. Kartia ...	800	1	...	...	800	1	Ditto ...	Ditto ...
	Bijnor ...	Rehar ...	15,719	25	...	...	15,719	25		
		Total ...	2,84,039	444	...	...	2,84,039	444		
Ganges ditto ...	Native Garhwal,	Bhagirathi leased forest ...	The portion of the forest leased from His Honor the Raja of Tehri.							
	Garhwal ...	Block No. III. Saneh ...	10,880	17	...	...	10,880	17		
		Ditto „ IV. Laldhang ...	23,360	37	...	...	23,360	37		
		Ditto „ V. Khara ...	56,320	88	...	...	56,320	88		
	Bijnor ...	Chandi ...	39,999	62	*1,740	...	41,739	65	* Island in the Ganges transferred from Saharanpur to Bijnor district.	Ditto
		Total ...	1,30,559	204	1,740	...	1,32,299	207		
Jhánsi ditto ...	Jhansi ...	Jhansi...	10,118	16	...	*11	10,107	16	*Land taken up by Jhansi Railway.	The areas are subject to correction.
		Mau	6,053	9	...	...	6,053	9		
		Garotha	5,127	8	...	...	5,127	8		
		Moth	2,272	4	...	...	2,272	4		
		Total ...	23,570	37	...	11	23,559	37		

Lalitpur	ditto ...	Lalitpur ...	Lalitpur ...	190	...	...	...	190	...		
			Bansi	4,733	7	...	...	4,733	7		
			Talbahat	9,290	15	...	..	9,290	15		
			Balabahat	30,186	47	...	...	30,186	47		
			Baupur	4,745	7	...	...	4 745	7		
			Mahroni	1,283	2	...	...	1,283	2		
			Maraura ...	40 290	63	...	*875	39,415	62	*Restored to the Obaridar of Dongra Kalan, *vide* G. O No. 1757, dated 2nd August, 1883.	Ditto ditto.
			Total ...	90,717	142	...	875	89,842	140		
			Total ...	9,40,295	1,470	1,740	886	9,41,149	1,471		
			Area of protected forests, 1884-85.								
Nami Tal	ditto...	Kumaun ...	Block No. I.	22,744	36	...	...	22,744	36	No additions or transfers.	Includes 3,292 acres of village lands
			Ditto „ II.	198				198			
			Total ...	22 937	36	...	...	22.937	36		
Ranikhet	ditto...	Ditto ...	Block No I, Maehor ...	211	...	...	...	211	...	Ditto ...	The area is subject to correction on the receipt of area statements from the forest survey department.
			Ditto „ II Bhatronj ...	5,760	9	..	...	5,760	9		
			Ditto „ III. Tetalikhet or Sheoni.	4,480	7	...	...	4,480	7		
			Ditto „ IV. Sinn ..	640	1	...	...	640	1		
			Ditto „ V. Bellekh ...	640	1	...	...	640	1		
			Ditto „ VI Kathalikh ..	1,920	3	...	...	1,920	3		
			Ditto „ VII Gamadeoli ...	1,280	2	...	...	1 280	2		
			Ditto „ VIII Karchuli ...	203	...	...	...	203	...		
			Ditto „ IX Chiliana ...	640	1	...	...	640	1		
			Ditto „ X Chaubattia ...	1,280	2	...	...	1,280	2		
			Ditto „ XII Padholi ...	640	1	...	...	640	1		
			Ditto „ XIII Dwarson ...	1,920	3	...	...	1,920	3		
			Ditto XIV Airadeo ...	16 640	26	...	...	16,640	26		
			Ditto XV. Siahi Devi ...	1,920	3	...	...	1,920	3		
			Total ...	38,174	59	...	...	38,174	59		
Lalitpur	ditto ...	Lalitpur ...	Lalitpur	65	...	...	...	65	...	*Made over to the Jain temple situate in the Pawa forest, *vide* G. O No. 118/702, dated 25th February, 1885.	Ditto ditto.
			Talbahat	2,363	4	...	*1	2,362	4		
			Total ...	2,428	4	...	1	2,427	4		
			Total ...	63,539	99	...	1	63,538	99		
			Area of Banda forests, 1884-85.								
Bánda	ditto...	Bánda ...	*I.—Government villages.*								
			1. Ambha	2,242 77	...	...	...	2,242 77	...		
			2 Amchurnarna ...	4,216 66	...	...	...	4,216·66	...		
			3 Uldan	714 02	...	...	...	714·02	...		
			4. Uncha Dih	413 88	...	...	...	413·88	...		
			5. Parasin	3,623·30	...	...	...	3,623 30	...		
			6. Jaro	1,139 94	...	...	...	1,139 94	...		
			7. Chauri	4,036 70	...	...	...	4,036 79	...		
			8. Chulhi Mohal Sheo Prashad.	1,627·66	...		...	1,627 66	...		

ANNUAL FORM No. 49.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Area of Bánda Forests, 1884-85—(concluded).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 188 .		Added during the year.	Excluded or transferred to other heads.	Area on 31st March, 188 .		No. and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		I.—Government villages.								
Bánda ...	Bánda district,	9. Deori	4,273·31	...	...	...	4,273·31	...		
		10. Donda	5,416·14	...	...	...	5,416·14	...		
		11. Rojohan	4,618·60	...	...	...	4,618·80	...		
		12. Rukma khurd ...	132·62	...	...	...	132 62	...		
		13. Takraohan	644·60	...	...	...	644·80	...		
		14. Karka Pandri ...	730·93	...	...	...	730·93	...		
		15. Matdar	6,729·10	...	...	...	6,729·10	...		
		16. Mao	385·53	...	...	...	385·53	...		
		17. Kuluba	6,182·0	...	...	...	6,182·0	...		
		18. Ranipur	2,697·84	...	...	...	2,697·84	...		
		19. Gidraha	221 66	...	...	...	221·66	...		
		20. Chhirriya Buzurg ...	1,237·83	...	...	...	1,237 83	...		
		21. Mamaniya	2,250·24	...	...	...	2,250·24	...		
		Total ...	53,535·73	...	...	...	53,535·73	...		
		II.—Villages held under 45-55 arrangement.								
Bánda...	Bánda district,	22. Bhera	777 96	...	...	...	777·96	...		
		23. Tikariya	2,892·39	...	...	...	2,892·39	...		
		Section No. 8. Chulhi mohal Balkishn.	26·25	...	...	...	26 25	...		
		Section No. 8. Chulhi mohal Mukhramgir.	13 0	...	...	...	13·0	...		
		24. Chhirlaba	1,502·38	...	...	...	1,502·38	...		
		25. Dadri	4,697·0	...	...	...	4,697·0	...		
		26. Rukma Buzurg ...	1,978·21	...	...	...	1,978·21	...		
		27. Karaoban	728·43	...	...	...	728·43	...		
		Chedghatti (included in Karaoban).	69·43	...	...	...	69·43	...		
		28. Kalyanpur	2,670·66	...	...	...	2,670·66	...		
		29. Gur Tarai	908·43	...	...	...	908·43	...		
		30. Maraiyan	1,885·68	...	...	...	1,885·68	...		
		31. Mahub	948·76	...	...	...	948·76	...		
		32. Nibi	2,109·61	...	...	...	2,109 61	...		
			21,208·19	...	...	...	21,208 19	...		
		Total ...	74,743·92	...	...	...	74,743·92	...		
		Add area outside the Forest line,	716 0	...	...	...	716·0	...		
		GRAND TOTAL ...	75,459 92	...	...	...	75,459·92	...		

NAINI TAL
The 17th July, 1885.

G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

ANNUAL FORM No. 50—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Area of Plantations, 1884-85.

Division.	Name of plantation.	*On 1st April*, 1884. Area.	Cost.	*Added during* 1884-85 Area.	Cost.	*On 31st March*, 1885 Total area	Total cost	Remarks.
		Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	
Kumaun ...	Various plantations imperfectly stocked, incomplete or success uncertain.	...	2,780	...	(a) 232	...	3,012	*Principally Sal.* (a) Expenditure under A.VIII *d*.
Naini Tál ...	Ayarpatta	5	16	...	...	5	16	Oak (2 dilatata).
	Jabar	147	871	...	19	147	890	Deodar.
	China	77	639	...	169	77	808	Deodar, walnut, horse-chestnut and oaks.
	Kahla	35	313	...	87	35	400	Walnut and deodar
	Various other plantations imperfectly stocked, incomplete or success uncertain.	...	3,323	...	257	...	3,580	Ash, walnut, horse-chestnut and oaks.
	Total	264	5,162	...	(b) 532	264	5,694	(b) Expenditure under A VIII.*d*.
Ránikhet ...	Jakhdeo (Upper)	367	13,064	...	...	367	13,064	Walnut, horse-chestnut, gum and acacia
	Ditto (Lower)							Gums, acacia, walnut, horse chestnut, sweet-chestnut and deodar.
	Garkhet							Deodar, oak, walnut, and horse chestnut.
	Jainoli							Walnut, horse-chestnut, deodar, oak and acacia.
	Darimkhet							Walnut, horse-chestnut, and deodar.
	Ghingárúkhal							Ditto ditto
	Various other plantations imperfectly stocked, incomplete or success uncertain.	...	6,061	...	2,038	...	8,099	Deodar, walnut, horse-chestnut, ash, acacia, pinus excelsa, alder and cypress.
	Total	367	19,125	...	(c) 2,038	367	21,163	(c) Expenditure under A.VIII *d*.
Garhwál ...	Boxar	...	560	...	...	...	560	A failure.
	Prempuri and Saneh	1	678	...	238	1	916	Mango groves on camping grounds.
	Total	1	1,238	...	(d) 238	1	1,476	(d) Expenditure under A VIII.*d*.
Ganges ...	Haldúkhata	...	231	...	7	...	238	
	Chila	...	133	...	27	...	160	Mango groves on camping grounds.
	Papidanda	...	30	...	...	...	30	
	Total	...	394	...	(e) 34	...	428	(e) Expenditure under A.VIII *d*.
Jhánsi ...	Sukhwan and Dukhwan	602	2,342	59	432	661	2,774	Teak, Sissu, Mahúa and Babul.
	Babina							
	Magarpur							
	Gangápúra							
	Kheri							
	Bhasneo, &c.							
	Total	602	2,342	59	(f) 432	661	2,774	(f) Expenditure under A.VIII.*d*.
Lalitpur ...	Kachnowda	10	150	...	(g) 50	10	200	Teak a failure, has been sown again with babul seed. (g) Expenditure under A.VIII.*d*.
Bánda	...	...	3	...	...	...	3	A failure.
	Total	1,244	*31,194	59	3,556	1,303	34,750	

NAINI TAL,
The 17th July, 1885.

Entered by mistake.
* Last year 30,194
* Should have been ... 31,194

G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

FORM No. 51.—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Area of forest tracts protected from fire during the dry season of 1885 (*to accompany Report for* 1884-85).

Division.	Forest tracts	*Up to 30th June, 1884*		*During dry season of 1885*				Total cost up to 30th June, 1885	Year in which protection commenced.	Remarks
		Area actually protected.	Total cost.	Area attempted to be protected.	Failure.	Actually protected.	Amount expended.			
		Acres.	Rs a. p.	Acres.	Acres.	Acres.	Rs. a. p.	Rs. a. p.		
Naini Tal ...	Block I	18,413	4,028 0 0	19,187	80	19,107	383 0 0	4,411 0 0	1876	
	" II	193		193	...	193				
	Total ...	18 606	4 028 0 0	19,380	80	19,300	383 0 0	4,411 0 0		
Rani Khet ...	Rani Khet Reserve ...	4 800	1,979 0 0	4,800	...	4,800	43 0 0	1 122 0 0	1874	
	Radholi protected ...	521	154 0 0	640	18	622	21 0 0	175 0 0	1882	
	Chaubattia ditto ...	1,267	218 0 0	1,280	...	1,280	27 0 0	245 0 0	1882	
	Chilianso ditto ...	640	20 0 0	640	2	638	16 0 0	36 0 0	1884	
	Karchili ditto ...	...	...	203	...	203	3 0 0	3 0 0	1885	
	Gamadeoli protected and closed portion.	1,280	345 0 0	1,280	68	1,212	36 0 0	381 0 0	1878	
	Kathalikh protected and closed portion.	1,700	403 0 0	1,709	...	1,709	49 0 0	452 0 0	1878	
	Seoni protected and closed portion	2,560	400 0 0	2,560	...	2,560	51 0 0	451 0 0	1880	
	Siún protected ...	...	...	640	...	640	12 0 0	12 0 0	1885	
	Total ...	12,768	2,619 0 0	13,747	88	13,655	258 0 0	2,877 0 0		
Kumaun ...	Horai	2,565	8,582 0 0	2,565	...	2,565	348 0 0	9,757 0 0	1876	
	Sadhmat ..	7,696		8,320	...	8,320	827 0 0			
	Jaunli Sal ..									
	Nindhora	7,681	1,058 0 0	10,493	...	10,493	1,063 0 0	2,121 0 0	1882	
	Lakhman Mandi ...	2,000	437 0 0	2,000	...	2 000	51 0 0	488 0 0	1883	
	Chandani	320	...	320	...	320	52 0 0	52 0 0	1876	
	Total ...	20,262	10,077 0 0	23,698	...	23,698	2,341 0 0	12,418 0 0		

to 45 of Annual Report.

Garhwál ...	South Pátli Dún ...	45,631	24,609 0 0	45,631	...	45,631	2,591 0 0	27,130 0 0	1873	Vide pages. 38 to 45
	North Pátli Dún ...	46,537	12,370 0 0	50,783	...	50,783	3,489 0 0	15,859 0 0	1877	
	Sisham Kháta ...	1,820	1,657 0 0	2,020	...	2,020	369 0 0	2,026 0 0	1876	
	Rehar	12,258	5,514 0 0	12,258	...	12,258	1,413 0 0	6,927 0 0	1880	
	Chilkia Mohán ...	46,240	30,379 0 0	46,240	129	46,111	2,831 0 0	33,210 0 0	1873	
	Garhibul Chand ...	7,112	5,781 0 0	7,112	...	7,112	496 0 0	6,277 0 0	1876	
	Kotah	23,256	10,884 0 0	23,298	74	23,224	1,172 0 0	12,056 0 0	1876	
	Total ...	1,82,854	91,194 0 0	1,87,342	203	1,87,139	12,291 0 0	1,03,455 0 0		
Ganges ...	Tangnore leased deodar forest.	8,872	148 0 0	...	...	...	...	148 0 0	1876	
	Papidanda ...	...	3,293 0 0	...	...	...	...	1,260 0 0	1875	
	Hazara	2,000		2,000	...	2,000	543 0 0	2,576 0 0	1881	
	Jogichour	793		1,500	...	1,500				
	Kauria	3,000		3,000	160	2,840				
	Audher Majera ...	1,500		1,500	...	1,500				
	Sukrao	1,500		1,500	...	1,500			1882	
	Total ...	17,665	3,441 0 0	9,500	160	9,340	543 0 0	3,984 0 0		
Jhánsi ...	Sakwan	839	140 0 0	728	...	728	25 0 0	165 0 0	1874	
	Dhakwan	2,114	1,085 0 0	755	...	755	25 0 0	1,110 0 0		
	Magarpur	...	16 0 0	...	...	...	...	16 0 0	1881	
	Bhasneo	...	14 0 0	...	...	...	...	14 0 0		
	Total ...	2,953	1,255 0 0	1,483	...	1,483	50 0 0	1,305 0 0		
Lalitpur ...	Deogarh	998	733 0 0	998	...	998	100 0 0	833 0 0	1875	
	Garowli	751		751	...	751				
	Total ...	1,749	733 0 0	1,749	...	1,749	100 0 0	833 0 0		
	GRAND TOTAL ...	2,56,857	1,13,347 0 0	2,56,895	531	2,56,364	15,966 0 0	1,29,313 0 0		

Charged in previous years	... ...	1,13,347
Ditto in 1884-85 ...	... ...	9,489
Ditto in 1885-86 ...	... ...	6,477
Total	...	1,29,313

NAINI TAL:
The 17th July, 1885.

G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

ANNUAL FORM No. 52.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Prosecutions for breaches of Forest Rules during 1884-85.

Forest Division and Civil District.	Cases pending from 1883-84.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Naini Tal Division.														
Kumaun district	...	5	31	...	3	39	39	33	59	6	14	39	73	...
Ramkhet Division.														
Kumaun district	...	...	26	...	1	27	27	25	51	2	7	27	58	...
Kumaun Division.														
Kumaun district	...	...	1	...	...	1	1	1	3	...	...	1	3	...
Garhwál Division.														
Garhwál district	...	...	...	...	...	...	...	...	...	...	...	...	...	...
By His Highness the Raja of Tehri.														
Ganges Division.	2	...	...	...	1	1	3	1	2	1	...	2	5	1
By the District Officer, Bijnor.														
Garhwál district	1	...	...	...	1	1	2	1	1	1	1	2	2	...
Total, Ganges Division	3	...	...	...	2	2	5	2	3	2	4	4	7	1
Jhánsi Division.														
Jhánsi district	...	...	7	...	3	10	10	10	17	...	...	10	17	...
Lalitpur Division.														
Lalitpur district	...	...	29	3	7	39	39	34	57	3	6	39	63	...
Total	3	5	94	3	16	118	121	107	190	13	31	120	221	1

NAINI TAL,
The 17th July, 1885.

J. G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

ANNUAL FORM No. 53.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Summary of Revenue of the different Divisions, 1884-85.

Budget Heads.	Direction.	Naini Tal Division.	Kumaun Division.	Ranikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
RECEIPTS.										
I.—Timber and other produce removed from the Forests by Government agency :—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
(a) Timber	...	10,582 3 8	53,111 7 2	...	...	...	102 14 4	909 4 0	1,435 4 6	66,141 1 8
(b) Firewood and charcoal	...	12,717 9 6	...	26,324 5 2	...	...	384 0 7	...	...	39,425 15 3
(c) Bamboos	...	...	...	...	...	...	156 10 4	2,973 4 6	288 3 3	3,418 2 1
(d) Sandal-wood	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce ...	...	...	...	...	...	...	300 2 6	...	170 13 3	470 15 9
II.—Timber and other produce removed from the Forests by consumers or purchasers :—										
(a) Timber	...	90 8 9	1,12,139 7 11	928 12 0	88,258 2 5	40,354 6 3	2 13 6	655 5 9	445 1 3	2,43,874 9 10
(b) Firewood and charcoal	...	1,935 4 6	4,164 8 6	135 2 0	1,749 15 0	2,040 14 1	1,098 5 4	145 4 0	972 6 6	12,241 11 10
(c) Bamboos	...	20 2 0	17,519 12 3	...	17,197 7 6	28,899 13 8	74 15 9	485 9 6	178 10 0	63,871 6 8
(d) Grazing and fodder grass	...	58 1 6	8,356 5 8	499 0 0	2,497 5 8	2,937 3 3	2,107 13 0	2,540 10 6	792 14 0	20,799 5 7
(e) Other minor produce	...	61 8 0	14,756 5 0	717 13 2	5,879 11 4	2,784 10 9	452 1 3	1,697 14 0	1,914 3 1	28,264 2 7
III.—Confiscated, drift and waif wood	...	...	240 10 0	...	203 2 0	124 14 0	...	9 11 8	9 0 9	587 6 5
IV.—Revenue from forests not managed by Government—										
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	148 0 0	148 0 0
(b) Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...	...
V.—Miscellaneous :—										
(a) Fines and forfeitures	...	373 12 0	848 9 8	172 11 6	120 12 11	247 9 0	0 8 0	25 0 0	86 6 0	1,875 5 [illegible]
(b) Refunds	...	262 4 6	28 1 9	...	105 0 0	...	...	...	...	395 5 3
(c) Other sources	...	24 8 0	80 3 3	167 11 0	231 6 9	364 7 3	127 1 2	48 6 0	1,179 13 9	2,223 [illegible] 2
Total, Receipts	...	26,125 14 5	2,12,255 7 1	28,945 6 10	1,16,242 15 7	77,253 14 3	5,807 5 9	9,490 5 11	7,615 12 4	4,83,737 2 2

CALCUTTA :
The 15th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 53.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Summary of Expenditure of the different Divisions, 1884-85.

Budget Heads.	Direction.	Naini Tal Division.	Kumaun Division.	Ranikhet Division.	Garhwál Division.	Ganges Division.	Jhánsi Division.	Lalitpur Division.	Bánda Division.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS.										
I.—Timber and other produce removed from the forest by Government agency—										
(a) Timber ...	...	8,780 11 0	1,287 15 9	...	...	1,646 3 7	215 10 11	223 14 9	331 1 [illegible]	12,485 9 0
(b) Firewood and charcoal	...	9,208 1 0	...	13,313 12 7	...	...	152 12 7	...	...	22,674 10 2
(c) Bamboos	...	...	...	...	...	...	27 10 0	930 12 4	77 9 3	1,035 15 7
(d) Sandal-wood	...	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce	...	...	...	...	...	...	165 12 8	...	58 13 9	224 10 5
II.—Timber and other produce removed from the forest by consumers or purchasers	...	...	10,634 1 7	...	6,618 6 8	4,366 4 10	...	...	...	21,618 13 1
III.—Confiscated drift and waif wood	...	...	...	...	...	...	...	...	...	...
IV.—Revenue from forests not managed by Government—										
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests	...	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government	...	...	...	...	...	4,000 0 0	...	...	591 3 5	4,591 3 5
VI.—Live Stock, Stores, Tools and Plant:—										
(a) Purchase of cattle...	...	...	...	...	...	...	48 8 0	149 2 6	49 0 0	246 10 0
(b) Feed and keep of cattle	...	...	1,234 3 0	...	2,005 2 6	1,284 15 9	400 15 0	1,314 12 2	3 2 3	6,163 2 8
(c) Stores, tools and plant	582 0 0	54 4 6	801 14 9	138 2 7	465 0 0	536 10 0	68 8 0	188 11 11	12 0 0	2,847 3 9
VII.—Communications and Buildings:—										
(a) Roads and bridges ...	8 2 0	357 9 2	9,043 3 6	114 0 0	16,799 6 5	2,505 11 9	118 3 [illegible]	67 10 3	254 0 0	29,267 14 1
(b) Buildings	37 1 3	91 15 6	4,540 15 4	215 0 6	2,999 9 3	1,296 2 11	355 8 2	319 14 8	22 2 0	9,9[illegible]8 5 7
(c) Other works	...	...	874 0 9	...	245 9 6	...	...	...	16 4 0	1,135 14 3
VIII.—Demarcation, improvement and extension of forests:—										
(a) Demarcation	...	25 6 6	123 15 5	50 7 6	225 4 9	503 6 11	99 8 0	...	4 0 0	1,032 1 1
(b) Compensation for land and rights	...	...	...	...	...	...	...	...	...	...
(c) Surveys and working plans	60 0 0	...	1,118 15 11	70 3 10	...	1,442 8 4	...	...	...	2,691 12 1
(d) Plantations	...	532 3 4	232 2 7	2,058 7 8	238 4 0	33 15 10	431 15 1	50 0 0	...	3,557 9 6
(e) Protection from fire	...	331 12 3	7,703 11 0	287 7 11	7,887 13 10	525 12 0	50 0 0	100 0 0	30 0 0	16,916 9 0
(f) Other works	...	...	346 12 8	1,174 13 10	125 7 6	5 0 0	55 6 6	...	4 11 9	1,712 4 3
IX.—Miscellaneous—										
(a) Refunds	...	...	...	...	...	...	...	...	...	...
(b) Law charges	...	...	...	...	...	...	...	...	...	...
(c) Other charges	23 9 0	6 13 0	48 1 0	56 14 9	349 15 4	85 15 6	28 14 1	[illegible] 5 0	2 0 0	656 7 8
Total A.—Conservancy and Works ...	710 12 3	19,388 12 3	37,990 1 3	17,459 7 2	37959 15 9	18,152 11 5	2,269 4 0	3,379 3 1	1,455 15 5	1,38,766 2 7

CALCUTTA:
The 15th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 53.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE

Summary of Expenditure of the different Divisions, 1884-85.

Budget Heads.	Direction	Naini Tal Division	Kumaun Division.	Ranikhet Division	Garhwál Division.	Ganges Division.	Jhánsi Division	Lalitpur Division.	Bánda Division.	Total.
	Rs. a p	Rs. a. p	Rs. a p	Rs a. p.	Rs. a p.	Rs. a. p	Rs. a. p.	Rs. a. p	Rs. a. p	Rs. a. p
B—ESTABLISHMENT.										
I—SALARIES—										
(a) Conservators	18,000 0 0	...	...	...	...	...	...	...	...	18,000 0 0
(b) Superior officer	2,700 0 0	6,793 15 11	8,132 8 1	7,200 0 0	12,759 10 10	9,984 10 11	...	...	...	47,576 13 9
(c) Subordinate forest and depôt establishments,	...	1,048 6 8	2,382 13 6	1,961 5 9	7,036 0 10	3 508 9 8	1,090 8 [illegible]	1,559 5 9	1,287 15 5	26,875 1 4
(d) Office Establishments...	3,156 0 0	280 0 0	1,988 3 8	510 0 0	1,656 0 0	1,328 4 0	60 0 0	204 0 0	617 8 0	10,599 15 8
(e) Deputation and special allowances ...	...	...	750 0 0	1,800 0 0	118 6 1	...	...	...	...	2,668 6 1
II—TRAVELLING ALLOWANCES:—										
(a) Conservators	1,296 0 0	...	...	...	...	...	...	...	...	1,296 0 0
(b) Superior Officers	814 2 0	750 0 0	1,828 14 0	267 0 0	1,592 0 0	2,004 4 0	...	...	...	7,256 4 0
(c) Subordinate Forest and depôt establishments,	...	6 1 0	708 5 3	...	824 5 0	363 15 4	152 0 0	179 8 0	...	2,234 [illegible]
(d) Office establishments	61 8 0	14 2 8	554 5 4	15 6 8	417 2 8	566 0 0	...	2 0 0	...	1,630 9 4
III.—CONTINGENCIES—										
(a) Stationery	1 14 6	16 0 0	99 5 3	12 9 6	9 6 0	79 8 7	12 0 0	12 9 3	14 0 0	256 15 1
(b) Carriage of tents and records	599 9 7	144 4 0	434 7 3	47 5 4	385 8 11	527 14 10	...	...	...	2,142 1 11
(c) Rents, rates and taxes	69 0 0	60 0 0	22 0 0	...	22 0 0	35 8 0	12 0 0	...	...	220 8 0
(d) Pay of police guards	294 0 0	...	...		...	...	...	...	...	294 0 0
(e) Official postage	258 8 6	13 15 6	95 10 6	26 0 0	109 5 0	47 9 6	15 15 0	66 12 0	...	633 13 0
(f) Sundries	216 12 6	449 3 9	412 9 4	2 0 0	320 0 3	244 12 6	9 6 0	2 6 9	2 12 0	1,660 15 1
TOTAL B, ESTABLISHMENTS... ...	28,967 7 1	9,582 1 6	24,410 2 3	11,841 11 3	25,252 7 7	18,691 1 1	1,351 13 0	2,026 10 9	1,922 3 5	1,23,145 9 11
GRAND TOTAL OF EXPENDITURE	28,778 3 4	28,970 13 9	62,400 3 6	29,301 2 5	63,212 7 4	36 843 12 6	3,621 1 0	5,405 14 10	3,379 2 10	2,61,911 [illegible] 6

CALCUTTA
The 15th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 54.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Account Current for the year 1884-85.

DR.

Heads of account.	Rs. a. p.	Rs. a. p.
To cash balance on 1st April, 1884	...	25,782 7 0
„ revenue as per annual summary (Form No 53)	...	4,63,737 2 2*
Service Fund.		
„ Uncovenanted Service Family Pension Fund, Bengal ...	1,166 12 0	
„ Military Fund, Bengal	126 0 0	
„ Military Orphan Fund, Bengal	105 0 0	1,397 12 0
Forest Cash Remittances, Local.		
„ Forest cheques drawn	2,56,036 14 2	
„ Inter-divisional transfers	957 11 4	2,56,994 9 6
„ Advances recoverable	...	48,899 4 7
Account current (other Governments).		
Government of India	...	1,313 0 6
Inter-departmental transfers.		
„ Public Works Department (other branches)	383 7 6	
Civil Department.		
Mathematical Instrument Department	35 8 0	418 15 6
Total ...	...	8,18,543 3 3

CR.

Heads of account.	Rs. a. p.	Rs. a. p.
By expenditure as per annual summary (Form No. 53) ...	...	2,61,911 12 6
Forest Cash Remittances (Local).		
„ Remittances to Treasuries	...	4,22,065 1 0
„ *Advances recoverable	...	54,695 15 5
Account current (other Governments).		
„ Government of India	562 2 7	
„ Government of Panjab	2,000 0 0	2,562 2 7
Inter departmental transfers.		
„ Public Works Department (other branches)	1,044 0 5	
„ Military Department, Bengal	38,678 6 8	39,722 7 1
„ *Cash balance on 31st March, 1885	...	37,555 12 8
Total ...	...	8,18,543 3 3

CALCUTTA
The 15th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

£. s. d.
* A sum of 712 8 6 = Rs. 8,768-4-7 credited in the English accounts not included in this.

ANNUAL FORM No. 55.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for 1884-85.

Divisions.	Department debtor.			Department creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
	Rs. a. p	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a.	
Direction	...	779 9 0	779 9 0	4 9 0	775 0 0	779 9 0	...	...	
Naini Tal	...	2,286 8 0	2,286 8 0	485 3 2	2,122 0 0	2,607 3 2	320 11 2	...	
Kumaun	...	5,428 15 4	5,428 15 4	783 5 0	6,063 8 0	6,846 13 0	1,417 13 8	...	
Ranikhet	...	6,648 11 2	6,648 11 2	500 0 0	7,148 11 2	7,648 11 2	1,000 0 0	...	
Garhwál	...	20,582 10 7	29,582 10 7	3,410 6 10	24,375 9 6	27,786 0 4	7,203 5 9	...	
Ganges	...	8,965 14 9	8,965 14 9	959 3 10	10,201 2 10	11,160 6 8	2,174 7 11	...	
Jhánsi	...	1,228 5 4	1,228 5 4	229 13 10	1,158 8 0	1,388 5 10	160 0 6	...	
Lalitpur	...	1,808 12 3	1,808 12 3	109 10 7	1,701 9 9	1,811 4 4	2 8 1	...	
Bánda	...	1,149 14 2	1,149 14 2	...	1,149 14 2	1,149 14 2	...	...	
Total ...	...	48,899 4 7	48,899 4 7	6,482 4 3	54,695 15 5	61,178 3 8	12,278 15 1	...	

CALCUTTA:
The 15th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 56.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRE

Revenue received and Outstandings on account of Revenue during 1884-85.

Divisions.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a p.	
Direction ...	Timber poles, grazing dues and minor produce	...	...	...	...	...	
Naini Tal ...	Ditto ditto ...	... (a)	26,125 14 5	26,125 14 5	26,125 14 5	...	
Kumaun ...	Ditto ditto ...	—907 9 0	2,13,163 0 1	2,12,255 7 1	2,12,255 7 1	...	(a) Revenue received in advance in 1883-84.
Ránikhet ...	Ditto ditto ...	...	28,945 6 10	28,945 6 10	28,945 6 10	...	
Garhwál ...	Ditto ditto ...	...	1,16,242 15 7	1,16,242 15 7	1,16,242 15 7	...	
Garges ...	Ditto ditto ...	...	77,253 14 3	77,253 14 3	77,253 14 3	...	
Jhánsi ...	Ditto ditto ...	...	5,807 5 9	5,807 5 9	5,807 5 9	...	
Lalitpur ...	Ditto ditto ...	...	9,490 5 11	9,490 5 11	9,490 5 11	...	
Bánda	Ditto ditto ...	373 7 6	7,513 1 6	7,886 9 0	7,615 12 4	270 12 8	
	Total ...	—534 1 6	4,84,542 0 4	4,84,007 14 10	4,83,737 2 2	270 12 8	

CALCUTTA:
The 15th June, 1885.

p. M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 57.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Financial results of the year 1884-85.

Division	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection, and improvement of forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts	Charges	
	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs	
Direction ...	...	...	...		...	...	28,778	
Naini Tal ...	23,300	21,362	2,896	3,346	4,263	26,126	28,971	
Ranikhet ...	26,324	17,458	2,621	4,075	7,768	28,946	29,301	
Kumaun ..	53,111	15,277	1,59,144	23,105	23,518	2,12,255	62,400	
Garhwal ...	...	.	1,16,243	38,983	24,930	1,16,243	1,1,213	
Ganges ...	...	..	77,254	25,935	10,909	77,254	36,844	
Jhansi ...	944	1,456	4,-63	635	1,530	5,807	3,621	
Lalitpur ...	3,888	2,797	5,607	817	1,792	9 490	5,406	
Bánda ...	1,894	1,880	5,722	739	809	7,616	3,378	
Total Rs. ..	1,09,456	60,180	3,74,281	97,435	75,519	4,83,737	2,01,912	

NAINI TAL:
The 17th July, 1885.

G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

FORM No. 58.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Trees felled by Government agency during the year 1884-85. (*Selection fellings*).

Division.	Trees felled. Description.	Number.	Remarks.
Naini Tal	Ash	1	Converted into logs.
	Chir	564	
	Oaks	150	Commissariat fuel.
	Rhododendron	19	
	Ayar	11	
	Total ...	745	
Ranikhet	Chir	401	Ditto ditto.
	Oak	81	
	Miscellaneous ? ...	164	
	Total ...	646	
Kumaun	*Nil*	...	
Garhwál	"	...	
Ganges	Boxwood	132	Sent for sale to Messrs Churchill and Sim, London.
Jhánsi	Miscellaneous	432	
Lalitpur	Ditto	1,482	
	Total ...	3,437	

ABSTRACT.

Description of trees.	1st Class above 6′ in girth	2nd Class 4½′ -6′	3rd Class 1½′—4½′	4th Class under 1½′	Total of each kind of tree	Total of cubic feet.
Chir	394	451	120	...	965	43,600
Oak	35	82	114	...	231	17,153
Box	...	....	132	..	132	528
Miscellaneous ...	12	83	99	1,915	2,109	11,582
Total ..	441	616	465	1,915	3,437	72,863

Giving an average of 21 cubic feet per tree.

DATED NAINI TAL,
The 17th July, 1885

G. GREIG,
Conservator of Forests, N.-W. P and Oudh, Central Circle

FORM No. 59—[SUGGESTED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Outturn of timber and other produce cut and collected by Government agency during the year 1884-85.

Division	Produce cut and collected. How obtained.	Description	Number or quantity	Cubic feet	Remarks.
Naini Tal ..	Selection fellings .	Chir logs	2,400	20,600	
	Ditto ...	Ash ,, ...	1	10	
		Total, timber ...	2,401	20 610	
	Selection fellings ...	Firewood Mds. ...	4,574	9,149	
	Fallen wood ...	Ditto ,, ...	21,288	51,335	
		Total, firewood Mds ...	25,862	60,483	
	Selection fellings ..	Charcoal ... Mds ...	1,089	17,420	
	Fallen wood ..	Ditto ... ,, ...	90	900	
		Total, Charcoal Mds. ...	1,179	18,320	
Ránikhet ...	Selection fellings ...	Chir karis	703	937	
	Ditto .	,, poles	487	844	
		Total, timber ...	1,190	1,781	
	Selection fellings ...	Firewood Mds. .	19,357	35,272	
	Fallen wood ...	Ditto ,,	35,486	64,664	
	Clearances .	Ditto ,, ...	5,046	9,194	
		Total, firewood Mds. ...	59,859	1,09,130	
Ganges ...	Selection fellings ...	Boxwood, pieces ...	318	396	
		Total, timber ...	318	396	
	Confiscated, drift and waif wood	Pieces	148	214	
		Bamboos ... No. ...	1,700	...	
Jhánsi ...	Selection fellings ...	Miscellaneous ballis	432	648	
	Thinnings ...	Firewood Mds. ..	2,238	6,714	
	Tops and branches ...	Charcoal ,, ...	119	1,785	
	Thinnings ...	Bamboos Nos. ...	12,393	...	
	Ditto ...	Kiras ,, ...	1,827	...	
	Ditto ...	Kurias ,, ...	35,229	...	
	Ditto ...	Siari baskets ,, ...	400	...	
Lalitpur ...	Selection fellings ...	Miscellaneous ballis ...	2,800	3,827	
	Thinnings ...	Ditto ,, ...	16	35	
	Clearance ...	Ditto ,, ...	11	25	
		Total, ballis ...	2,827	3,887	
	Thinnings ...	Bamboos No. ...	6,55,614	...	
	Clearance ...	Kurias ,,	1,74,619	...	
	Confiscated, drift and waif wood.	Miscellaneous ballis ...	230	401	
	Ditto ..	Bamboos No ...	200	...	
	Ditto ...	Kurias ,, ...	285	...	
	Ditto ...	Firewood Mds. ...	1	3	

FORM No. 59—[SUGGESTED]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Outturn of timber and other produce cut and collected by Government agency during the year 1884-85—(concluded).

Division	Produce cut and collected				Remarks.
	How obtained	Description	Number or quantity	Cubic feet	
Bánda ...	Thinnings	Miscellaneous ballis ..	4,636	4,636	
	Ditto	Dandia ...	100	50	
	Conversion	Dhura ..	550	68	
	Thinnings ...	Sachra	192	32	
	Ditto ..	Haris	100	50	
	Conversion .	Koron ...	2,850	950	
	Thinnings ..	Yokes ...	100	12	
		Total, timber	8,528	5,798	
	Thinnings ...	Bamboos No	21,790	...	
	Collection	Hides ,, ..	1	.	
	Ditto ...	Mahua Mds	214	...	
	Cutting ...	Grass ,, ...	100	..	
	Confiscated drift and waif wood ...	Pieces	5	2	
		Firewood Mds ..	1	3	
		Abstract of the Circle.			
		Chir logs ...	2,400	20,600	
		Ash ,,	1	10	
		Chir karis	707	937	
		,, poles ...	487	844	
		Miscellaneous ballis	7,895	9,171	
		Boxwood, pieces ...	318	396	
		Dandia, Dhura, Sachra, Haris, Koron and Yokes,	3,892	1,162	
		Total, timber ...	15,696	33,120	
		Firewood Mds ...	87 989	1,76,327	
		Charcoal ,, ..	1,298	20,105	
		Bamboos No ...	2,89,797	...	
		Kiras ,, ...	1,827	...	
		Kurias ,, ...	2,09,848	...	
		Hide ,, .	1	...	
		Mahua Mds ...	214	.	
		Grass ,, .	100	...	
		Siari baskets No ...	400	..	
		Confiscated, drift and waif wood			
		Pieces ...	473	617	
		Firewood Mds ..	2	6	
		Bamboos No. ...	1,950	...	
		Kurias ,, .	285		

DATED NAINI TAL
The 17th July, 1885

G. GREIG,
Conservator of Forests, N. W. P. and Oudh, Central Circle.

FORM No. 60—[SUGGESTED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Timber and other produce received from Forests in Sale Depôts, during the year 1884-85.

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks.
Naini Tal ...	Kahla ...	Chir karis ...	3,970	6,639	
		„ planks ...	27,329	13,244	
	Naini Tal ...	Charcoal Mds. ...	1,179	18,320	
Ranikhet ...	Ránikhet ...	Firewood „ ...	45,275	82,501	
Kumaun ...	Chaubattia ...	Ditto „ ...	17,270	31,469	
Garhwál ...	...	...	...	...	
Ganges ...	...	...	...	...	
Jhánsi ...	...	...	...	...	
	Jhánsi ...	Miscellaneous ballis.	432	648	
		Firewood Mds. ...	1,942	5,826	
		Charcoal „ ...	69	955	
		Bamboos No. ...	12,393	...	
		Kiras „ ...	952	...	
		Kurias „ ...	36,020	...	
	Mau ...	Firewood Mds. ...	296	888	
		Charcoal „ ...	50	750	
		Kiras No. ...	875	...	
		Kurias „ ...	5,209	...	
		Baskets „	400	...	
Lalitpur ...	Lalitpur ...	Miscellaneous ballis...	534	884	
		Bamboos No. ...	84,370	...	
	Talbahat ...	Ditto „ ...	80,125	...	
	Maraura ...	Miscellaneous ballis...	320	460	
		Bamboos No. ...	36,889	...	
		Kurias „ ...	6,523	...	
	Bánsi ...	Miscellaneous ballis...	100	150	
		Bamboos No. ...	59,877	...	
	Jakhora ...	Ditto „ ...	32,800	...	
	Mahroni ...	Ditto „ ...	18,360	...	
Bánda ...	Banpur ...	Ditto „ ...	17,599	...	
	Manikpur ...	Miscellaneous ballis...	3,357	3,357	
		Dhura ...	354	44	
		Haris ...	10	5	
		Yokes ...	4	...	
		Sachra ...	12	15	
		Bamboos No. ...	7,825	...	
		Miscellaneous ballis...	481	481	
	Karwi ...	Dhura ...	136	17	
		Koron ...	2,685	895	

Abstract of the Circle.

Chir karis ...		3,970	6,639
„ planks ...		27,329	13,244
Miscellaneous ballis ..		5,224	5,980
Ditto pieces ...		3,281	976
Total, timber ...		39,804	26,839
Firewood	Mds. ...	64,783	1,20,664
Charcoal	„ ...	1,298	20,005
Bamboos	No. ...	3,41,536	...
Kiras	„ ...	1,827	...
Kurias	„ ...	41,752	...
Baskets	„ ...	400	...

DATED NAINI TAL,
The 17th July, 1885.

G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

FORM No. 61—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Sales of timber and other produce cut and collected by Government agency during the year 1884-85.

Division.	Depôt or locality.	Produce sold. Description.		Number or quantity.	Cubic feet.	Remarks.
		Sold from depôts.				
Naini Tal...	Kahla ...	Chir karis ...	...	2,969	5,116	
		„ planks ...	...	16,051	8,131	
	Naini Tal ...	Charcoal... ...	Mds.	836	13,280	
Ránikhet ...	Ránikhet ...	Firewood ...	„	54,600	99,493	
	Chaubattia...	Ditto ...	„	17,915	32,845	
Kumaun ...	Ramnagar,	Sál logs	...	128	6,808	
		„ sleepers ...	...	109	212	
		„ karis ...	...	14,227	25,223	
		Dhauri karis ...	...	2	3	
		Sál joras... ...	...	42	64	
		„ slabs ...	...	660	...	
	Chorgalia ..	„ logs	...	248	15,346	
		„ sleepers ...	...	226	315	
		„ karis ...	...	4,750	7,882	
		Sein karis ...	...	1,001	2,728	
		„ planks ...	...	4	4	
Garhwál ...	...	...	...	...	...	
Ganges ...	...	...	...	...	...	
Jhánsi ...	Jhánsi ...	Miscellaneous ballis	...	1,104	1,656	
		Firewood ...	Mds.	1,584	4,752	
		Charcoal ...	„	160	2,400	
		Bamboos ...	No.	16,342	...	
		Kiras ...	„	1,047	...	
		Kurias ...	„	42,420	...	
	Mau ...	Firewood ...	Mds.	101	303	
		Charcoal ...	„	8	135	
		Kiras ...	No.	681	...	
		Kurias ...	„	11,039	...	
		Baskets ...	„	400	...	
	Lalitpur ...	Miscellaneous ballis	...	175	274	
		Bamboos ...	No.	66,914	...	
	Talbahat ..	Ditto ...	„	80,170	...	
Lalitpur ...	Maraura ...	Miscellaneous ballis	...	186	275	
		Bamboos ...	No.	43,514	...	
		Kurias ...	„	11,174	...	
	Bánsi ...	Miscellaneous ballis	...	97	146	
		Bamboos ...	No.	61,500	...	
	Jakhora ...	Ditto ...	„	32,300	...	
	Mahroni ...	Ditto ...	„	5,014	...	
	Banpur ..	Ditto ...	„	4,650	...	
Banda ...	Manikpur...	Miscellaneous ballis	...	1,340	1,340	
		Dhura	...	219	27	
		Haris	...	14	7	
		Yokes	...	9	1	
		Sachra	...	20	3	
		Bamboos ...	No.	5,921	...	
	Karwi ...	Miscellaneous ballis	...	1,798	1,798	
		Dhura	...	153	19	
		Koron	...	2,516	839	
		Bamboos ...	No.	458	...	
		Sold locally.				
Naini Tal...	Various ...	Chir karis ...	...	5	[illegible]	
		Ash „ .	...	2	2	
		Ash planks ...	...	11	8	
		Chir slabs ...	...	100	42	
		Firewood ...	Mds.	25,862	60,483	
Ganges ...	Various ...	Sál, sandan, and sein tors	...	148	214	
		Bamboos ...	No.	1,700	...	
Lalitpur ...	Various ..	Miscellaneous ballis	...	2,193	2,794	
		Bamboos	No. ...	3,28,069	...	
		Kurias	„ ...	1,68,381	...	
		Firewood	Mds. ...	2	3	
Bánda ..	Various ...	Miscellaneous ballis	...	1,932	1,932	
		Jhand[illegible]	...	147	73	
		Dhu[illegible]	...	490	61	
		Sa[illegible]	...	304	51	
		Koron	...	2,130	710	
		[illegible]d	...	2	2	
		Firewood	Mds. ...	92	276	
		Charcoal	„ ...	1	15	
		Bamboos	No. ...	25,702	...	

FORM No. 61—(SUGGESTED)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE

Sales of timber and other produce cut and collected by Government agency during the year 1884-85 —(concluded).

Division	Depôt or locality.	Produce sold			Remarks
		Description	Number or quantity.	Cubic feet.	
		Sold locally—(concluded)			
Bánda ...	Various ...	Hide No. ..	1	...	
		Mahua Mds. ...	214	...	
		Grass ,, ...	26	..	
		Axe No. ...	1	...	
		Abstract of the Circle.			
		Sold from Depôts			
		Sál logs	376	22,154	
		,, sleepers	345	527	
		,, karis ...	18,977	32,705	
		Sein karis	1,001	2,728	
		Dhauri karis	2	3	
		Chir karis ... ,,	2,989	5,116	
		Sein planks	4	4	
		Chir ,, ...	16,051	8,131	
		Sál joras	42	64	
		,, slabs	660	...	
		Miscellaneous ballis ..	4,700	5,489	
		Ditto pieces ...	2,931	896	
		Total, timber ...	48,058	77,817	
		Firewood Mds. ...	74,200	1,37,193	
		Charcoal ,, ..	1,005	15,815	
		Bamboos No. ...	3,16,783	...	
		Kiras ,,	1,728	...	
		Kurias ,, ..	64,633	..	
		Baskets ,, ...	400		
		Sold locally			
		Chir karis ...	5	8	
		Ash ,, ...	2	2	
		,, planks	11	3	
		Sál, sandan and sein tors ...	148	214	
		Chir slabs	100	42	
		Miscellaneous ballis ..	4,125	4,726	
		Ditto pieces ...	3,073	897	
		Total, timber ..	7,464	5,897	
		Firewood Mds ...	25,956	60,762	
		Charcoal ,, ...	1	15	
		Bamboos No. ...	3,55,471	...	
		Kurias ,, .	1,68,381	...	
		Hide ,, ..	1	...	
		Mahua Mds ..	214	...	
		Grass ,, ...	26	...	
		Axe No. ..	1	..	

DATED NAINI TAL; The 17th July, 1885.

G. GRIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

FORM No. 62—[PRESCRIBED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts, or sold locally during the year 1884-85.

Particulars		No or quantity	Cubic feet	Total of each head. No or quantity.	Total of each head. Cubic feet.
Balance at commencement of the year.					
Naini Tal Division,	Chir karis ...	108	181	1,123	749
	,, planks ...	1,015	568		
	Charcoal	2,702	29,720	2,702	29,720
Ránikhet ditto ...	Firewood Mds.	13,683	24,933	13,683	24,933
Kumaun ditto ...	Sál logs	565	30,583		
	Haldu logs	2	64		
	Sál sleepers ...	372	494		
	,, karis	22,614	38,166		
	Sein ,, ...	1,001	2,728		
	Dhauri karis ...	2	3		
	Sein planks ...	4	4		
	Sál joras ...	53	94	24,613	72,138
Garhwál ditto ...	... ...	...	...	...	...
Ganges ditto ...	... ...	...	...	...	...
Jhánsi ditto ...	Miscellaneous ballis .	752	1,128	752	1,128
	Firewood Mds.	676	2,028	676	2,028
	Charcoal ... ,,	538	3,070	538	3,070
	Bamboos ... No.	5,470	No.	5,470	No
	Kiras ... ,,	1,249	,,	1,249	,,
	Kurias ... ,,	25,895	,,	25,895	,,
	Baskets ... ,,	94	,,	94	,,
Lalitpur ditto ...	Miscellaneous ballis ...	367	554	367	554
	Bamboos No.	49,254	No	49,254	No.
	Kurias ,,	7,923	,,	7,923	,,
Bánda ditto ...	Miscellaneous ballis ...	1,302	1,302		
	Dhúra	31	4		
	Haris	30	15		
	Yokes	15	2	1,378	1,323
	Bamboos ... No.	5,564	No.	5,564	No.
Total Balance ...	Timber	...	,,	28,233	75,892
	Firewood . Mds.	...	,,	14,359	26,961
	Charcoal ,,	...	,,	3,240	37,790
	Bamboos No.	...	,,	60,288	No.
	Kiras ,,	...	,,	1,249	,,
	Kurias ,,	...	,,	33,818	,,
	Baskets ,,	...	,,	94	,,
Received from the Forests in depôts.					
Chir karis		3,970	6,639		
,, planks		27,329	13,244		
Miscellaneous ballis		5,284	5,980		
,, pieces		3,281	976	39,804	26,839
Firewood	Mds	64,783	1,20,684	64,783	1,20,684
Charcoal	,,	1,298	20,005	1,289	20,005
Bamboos	No.	3,41,538	No.	3,41,538	No.
Kiras	,,	1,827	,,	1,827	,,
Kurias	,,	41,752	,,	41,752	,,
Baskets	,,	400	,,	400	,,

FORM No. 62—[PRESCRIBED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts, or sold locally during the year 1884-85—(continued).

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Received from the Forests and sold locally					
Chir karis		5	8		
Ash karis		2	2		
„ planks		11	8		
Sál, sandan and sein tors		148	214		
Chir slabs		100	42		
Miscellaneous ballis		4,125	4,726		
„ pieces		3,073	897	7,464	5,897
Firewood	Mds	25,956	60,762	25,956	60,762
Charcoal	„	1	15	1	15
Bamboos	No.	3,55,471	No.	3,55,471	No.
Kurias	„	1,68,381	„	1,68,381	„
Hide	„	1	„	1	„
Mahúa	Mds.	214	Mds.	214	Mds.
Grass	„	26	„	26	„
Axe	No.	1	No.	1	No
Received by conversion in depôts					
Sál sleepers		109	211		
„ karis and beams		136	1,675		
„ slabs		660	...	*905	1,886
Received by transfer from Sale depôts.					
Miscellaneous ballis		1,442	1,452		
„ pieces		20	3	1,462	1,455
Bamboos	No	1,000	No	1,000	No.
GRAND TOTAL — Timber ...		...	...	77,868	1,11,969
Firewood ...	Mds.	...	...	1,05,098	2,08,407
Charcoal ...	„	...	...	4,539	57,810
Bamboos ...	No	...	...	7,58,297	No
Kiras ...	„	...	...	3,076	„
Kurias ...	„	...	...	2,43,951	„
Baskets ...	„	...	...	494	„
Hide ...	„	...	...	1	„
Mahúa ...	Mds.	...	...	214	Mds
Grass ...	„	...	...	26	„
Axe ...	No.	...	...	1	No.
Removed by purchasers from depôts.					
Sál logs		376	22,154		
„ sleepers		345	527		
„ karis		18,977	32,705		
Sein „		1,001	2,728		
Dhauri karis		2	3		
Chir „		2,969	5,116		
Sein planks		4	4		
Chir „		16,051	6,131		
Sál joras		42	64		
„ slabs		660	...		
Miscellaneous ballis		4,700	5,489		
Ditto pieces		2,931	896	48,058	77,817
Firewood	Mds	74,200	1,37,193	74,200	1,37,193
Charcoal	„	1,005	15,815	1,005	15,815
Bamboos	No.	3,16,783	No.	3,16,783	No.
Kiras	„	1,728	„	1,728	„
Kurias	„	64,633	„	64,633	„
Baskets	„	400	„	400	„

FORM No. 62—[PRESCRIBED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts, or sold locally during the year 1884-85—(continued).

Particulars		No or quantity.	Cubic feet.	Total of each head	
				No. or quantity	Cubic feet.
Sold locally.					
Chir karis		5	8		
Ash ,, ...		2	2		
,, planks		11	8		
Sál sandan and seln tors		148	214		
Chir slabs		100	42		
Miscellaneous ballis		4,125	4,726		
Ditto pieces		3,073	897	7,464	5,897
Firewood	Mds	25,956	60,762	25,956	60,762
Charcoal	,,	1	15	1	15
Bamboos	No.	3,55,471	No.	3,55,471	No
Kuriss	,,	1,68,381	,,	1,68,381	,,
Hide	,,	1	,,	1	,,
Mahúa	Mds.	214	Mds.	214	Mds.
Grass	,,	26	,,	26	,,
Axe	No.	1	No.	1	No.
Converted in depôts					
Sál logs		79	3,741	79	3,741
Lost or written off as useless					
Miscellaneous ballis		62	94		
,, pieces		55	17	116	111
Firewood	Mds.	741	2,223	741	2,223
Charcoal	,,	361	5,415	361	5,415
Bamboos	No.	600	No	600	No.
Kiras	,,	421	,,	421	,,
Kuriss	,,	1,074	,,	1,074	,,
Baskets	,,	94	,,	94	,,
Used by the Department					
Sál logs		32	1,270		
,, sleepers		20	27		
,, karis		92	144		
Chir ,, ...		23	27		
,, planks		18	7		
Miscellaneous balks ...		6	12		
				191	1,49[illegible]
Transferred to other Sale depôts.					
Miscellaneous ballis		1,442	1,452		
,, pieces		20	3		
				1,462	1,45[illegible]
Bamboos	No.	1,000	No.	1,000	No.
Balance at close of the year					
Naini Tal Division ... Chir karis ...		1,086	1,677		
,, planks ...		12,275	5,674		
Charcoal	Mds	3,045	34,760	13,361	7,351
Rānikhet ditto ... Firewood	,,	3,713	6,765	3,045	34,760
				3,713	6,765
Kumaun ditto ... Sal logs ..		78	3,405		
Haldu logs ...		2	64		
Sál sleepers ...		116	155		
,, karis ...		3,681	6,992		
.. tors ...		11	29		
				3,888	10,648
Garhwál ditto		...		...	...
Ganges ditto		...	...	...	...

FORM No. 62—[PRESCRIBED]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts, or sold locally during the year 1884-85—(concluded).

Particulars			No. or quantity.	Cubic feet	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Jhánsi ditto ...	Miscellaneous ballis ...		17	26	17	26
	Firewood	Mds.	488	1,464	488	1,464
	Charcoal	"	127	1,805	127	1,805
	Bamboos	No.	921	No.	921	No.
	Kiras	"	927	"	927	"
	Kurias	"	6,591	"	6,591	"
Lalitpur ditto ...	Miscellaneous ballis ...		857	1,341	857	1,341
	Bamboos	No.	82,712	No.	82,712	No
	Kurias	"	3,272	"	3,272	"
Bánda ditto ...	Miscellaneous ballis ...		2,002	2,002		
	Dhúra ...		146	18		
	Haris ...		26	13		
	Yokes ...		10	1		
	Sachra ...		72	12		
	Koron ..		119	40	2,375	2,086
	Bamboos ...		810	No.	810	No.
Total balance ...	Timber ...		...	...	20,498	21,452
	Firewood	Mds.	...	...	4,201	8,229
	Charcoal	"	...	...	3,172	36,565
	Bamboos	No.	...	...	84,443	No
	Kiras	"	...	...	927	"
	Kurias	"	...	...	9,863	"
GRAND TOTAL ...	Timber ...		...	...	77,868	1,11,969
	Firewood ...	Mds	...	...	1,05,058	2,08,407
	Charcoal	"	...	...	4,539	57,810
	Bamboos ...	No	...	...	7,58,297	No.
	Kiras ...	"	..	...	3,076	"
	Kurias ...	"	...	...	2,63,951	"
	Baskets ..	"	...	...	494	"
	Hide ...	"	...	...	1	"
	Mahúa ...	Mds.	...	...	214	Mds.
	Grass	"	...	...	26	"
	Axe	No.	...	...	1	No

NAINI TAL;
Dated the 17th July, 1885.

G. GREIG,
Conservator of Forests, N.-W. P. and Oudh, Central Circle.

FORM No. 63.—[SUGGESTED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during year 1884-85.

Division	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs. a. p.	Rs. a. p.	
Naini Tal...	Chir	C. ft. 192	39 0 0	39 0 0	
	Miscellaneous poles... ...	" 294	18 0 0	18 0 0	
	Tún	" 10	5 0 0	5 0 0	
	Alder	" 112	7 0 0	7 0 0	
	Oak	" 384	22 0 0	22 0 0	
	Total, Timber ...	" 992	91 0 0	91 0 0	
	Firewood—Mds. 77 ...	" 155	9 0 0	9 0 0	
	" tickets 3,690—73,800...	" 147,600	1,845 0 0	1,845 0 0	
	Received in compensation for lopping, &c.	...	81 0 0	81 0 0	
	Total, Firewood ...	147,755	1,935 0 0	1,935 0 0	
	Ringals, headloads ...	161	20 0 0	20 0 0	
	Grazing	...	58 0 0	58 0 0	
	Other minor produce ...	...	62 0 0	62 0 0	
	Total, Revenue under II....	...	2,166 0 0	2,166 0 0	
Ráuikhet ...	Chir	C. ft. 7,800	901 0 0	901 0 0	
	Oak	" 100	15 0 0	15 0 0	
	Total .	7,900	916 0 0	916 0 0	
	Charpoys	Nos. 204	13 0 0	13 0 0	
	Total, Timber	C. ft. 7,900 No. 204	929 0 0	929 0 0	
	Firewood for squatters, Mds. 2,000	C ft 44,74	135 0 0	135 0 0	
	Grazing	...	499 0 0	499 0 0	
	Other minor produce ...	...	718 0 0	718 0 0	
	Total Revenue under II. ...		2,281 0 0	2,281 0 0	
Kumaun ..	Sál...	C. ft. 1,73 623	89,194 0 0	89,194 0 0	
	Haldu and Dhouri	" 60,711	15,686 0 0	15,686 0 0	
	Sein	" 9 203	2,428 0 0	2,428 0 0	
	Chir	" 354	72 0 0	72 0 0	
	Jaman	" 537	135 0 0	135 0 0	
	Shisham	" 12,686	3,595 0 0	3,595 0 0	
	Tún	" 1,019	316 0 0	316 0 0	
	Sandan	" 339	120 0 0	120 0 0	
	Khair	" 3,725	1,393 0 0	1,393 0 0	
	Total, Timber ...	" 2,02,190	1,13,139 0 0	1,13,139 0 0	
	Firewood—Mds 21,023 ...	C. ft. 42,046	2 628 0 0	2,628 0 0	
	Charcoal " 12,292 ..	98,336	1,537 0 0	1,537 0 0	
	Bamboos	Nos. 38,70,865	17,520 0 0	17,520 0 0	
	Grazing	...	8,866 0 0	8,866 0 0	
	Other minor produce ...	...	14,756 0 0	14,756 0 0	
	Total, Revenue under II. ...	...	1,57,946 0 0	1,57,946 0 0	
Garhwál ..	Sál.	C. ft. 1,43,864	76,466 0 0	76,466 0 0	
	Sein	" 24,892	6,109 0 0	6,109 0 0	
	Jaman	" 2,089	318 0 0	318 0 0	
	Shisham	" 2,000	628 0 0	628 0 0	
	Tún	" 700	219 0 0	219 0 0	
	Sandan	" 9,931	3,103 0 0	3,103 0 0	
	Khair	" 80	40 0 0	40 0 0	
	Miscellaneous	" 16 945	1,375 0 0	1,375 0 0	
	Total, Timber ...	" 2,00,501	88,258 0 0	88,258 0 0	

FORM No. 63—[SUGGESTED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, during the year 1884-85—(continued.)

Division.	Produce removed. Description.	Number or quantity	Amount of revenue.			Amount actually realized during the year.			Remarks.
			Rs	a.	p.	Rs	a.	p	
Garhwal—(*concluded*)	Firewood—Mds. 43,391 ...	C. ft. 86,782	884	0	0	884	0	0	
	Charcoal „ 7,213	„ 57,704	866	0	0	866	0	0	
	Bamboos	„ 40,57,657	17,197	0	0	17,197	0	0	
	Grazing	..	2,497	0	0	2,497	0	0	
	Other minor produce	...	5,880	0	0	5,880	0	0	
	Total, Revenue under II. ...	...	1,15,582	0	0	1,15,582	0	0	
Ganges ...	Sál	C. ft. 6,174	2,237	0	0	2,237	0	0	
	Sen	„ 7,308	2,305	0	0	2,305	0	0	
	Chir	„ 5,020	1,107	0	0	1,107	0	0	
	Shisham	„ 1,979	686	0	0	686	0	0	
	Tún	„ 68	23	0	0	23	0	0	
	Deodar	„ 1,07,602	32,672	0	0	32,672	0	0	
	Sandan	„ 1,143	408	0	0	408	0	0	
	Kokat	„ 6,542	832	0	0	832	0	0	
	Khair	„ 256	80	0	0	80	0	0	
	Boxwood	„ 2	4	0	0	4	0	0	
	Total, Timber ...	„ 1,37,094	40,354	0	0	40,354	0	0	
	Firewood—Mds 73,147 ...	„ 1,46,294	2,041	0	0	2,041	0	0	
	Bamboos	Nos 74,83,304	28,400	0	0	28,400	0	0	
	Grazing	..	2,937	0	0	2,937	0	0	
	Other minor produce ..	...	2,785	0	0	2,785	0	0	
	Total, Revenue under II. ...	...	76,517	0	0	76,517	0	0	
Jhansi ...	Miscellaneous ballis ...	C. ft 21	3	0	0	3	0	0	
	Firewood—Mds. 10,983 ...	„ 32,949	1,098	0	0	1,098	0	0	
	Bamboos	Nos 3,750	75	0	0	75	0	0	
	Grazing	..	3,108	0	0	3,108	0	0	* Includes 38459 kurias, the rest of the minor produce consists of articles too insignificant and numerous to detail.
	Other minor produce* ...	...	452	0	0	452	0	0	
	Total, Revenue under II. ...	...	4,736	0	0	4,736	0	0	
Lalitpur...	Miscellaneous ballis ...	C. ft. 5,016	401	0	0	401	0	0	
	Kurias	Nos. 98,284	249	0	0	249	0	0	
	Contract for making combs ...	...	5	0	0	5	0	0	
	Firewood—Mds. 14,620 ...	J. ft. 84,860	145	0	0	145	0	0	
	Bamboos	Nos. 1,70,004	486	0	0	486	0	0	
	Grazing	...	2,541	0	0	2,541	0	0	
	Other minor produce ...	...	1,698	0	0	1,698	0	0	
	Total Revenue under II. ...	...	5,525	0	0	5,525	0	0	
Bánda ...	Yokes and haris, &c., by contract,	...	445	0	0	436	0	0	
	Firewood by contract ...	...	914	0	0	906	0	0	
	Charcoal ditto ...	...	58	0	0	58	0	0	
	Bamboos ditto ...		174	0	0	174	0	0	
	Grazing	...	793	0		785	0	0	
	Other minor produce ...	...	1,914	0		1,872	0	0	
	Total, Revenue under II. ...	...	4,298	0	0	4,231	0	0	

FORM No. 63—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Timber and other produce cut, collected, and removed from the forest by consumers or purchasers including pasture, during year 1884-85—(concluded).

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
	ABSTRACT OF THE CIRCLE.		Rs. a. p.	Rs. a. p.	
	Sál	C. ft. 3,23,661	1,67,897 0 0	1,67,897 0 0	
	Haldu and Dhouri	,, 60,711	15,886 0 0	15,886 0 0	
	Sein	,, 41,403	10,842 0 0	10,842 0 0	
	Chír	,, 14,266	2,119 0 0	2,119 0 0	
	Jaman	,, 2,626	453 0 0	453 0 0	
	Shisham and kokat	,, 23,207	5,741 0 0	5,741 0 0	
	Tún	,, 1,790	563 0 0	563 0 0	
	Deodar	,, 1,07,692	32,672 0 0	32,672 0 0	
	Sandan	,, 11,413	3,631 0 0	3,631 0 0	
	Alder	,, 112	7 0 0	7 0 0	
	Oak	,, 484	37 0 0	37 0 0	
	Khair	,, 4,061	1,513 0 0	1,513 0 0	
	Miscellaneous poles for chapars,	,, 294	18 0 0	48 0 0	
	Miscellaneous ballis ...	,, 5,037	404 0 0	404 0 0	
	Miscellaneous pieces ...	,, 16,945	1,375 0 0	1,375 0 0	
	Boxwood	,, 2	4 0 0	4 0 0	
	Yokes and haris by contract ...	...	445 0 0	436 0 0	
	Contract for making combs ...	...	5 0 0	5 0 0	
	Total, Timber	6,13,704	2,43,612 0 0	2,43,603 0 0	
	Charpoys	Nos. 204	13 0 0	13 0 0	
	Kurias	,, 98,384	249 0 0	249 0 0	
	Firewood—Mds. 162,241 ...	C. ft. 3,47,530	6,940 0 0	6,940 0 0	
	,, Tickets 3,690—73,800...	1,47,600	1,845 0 0	1,845 0 0	
	,, By contract ...	...	914 0 0	906 0 0	
	,, Received in compensation for lopping, &c.	...	81 0 0	81 0 0	
	Charcoal—Mds 19,505 ...	C. ft. 1,56,040	2,403 0 0	2,403 0 0	
	,, By contract ...	...	58 0 0	58 0 0	
	Bamboos	Nos. 1,55,65,580	63,678 0 0	63,678 0 0	
	,, By contract ...	...	174 0 0	174 0 0	
	Ringals headloads	161	20 0 0	20 0 0	
	Grazing	...	20,799 0 0	20,701 0 0	
	Other minor produce ...	...	28,265 0 0	28,223 0 0	
	Total Revenue of the circle, under II.*	...	3,69,051 0 0	3,68,984 0 0	* Includes 38,459 kurias.

NAINI TAL;
The 17th July, 1885.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 64.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Revenue derived from, and expenditure incurred on, timber and other produce sold to public departments from depôt during the year 1884-85.

Name of Department.	Particulars of supplies.	Amount supplied	Rate.		Amount of revenue.			Cost to Forest Department.			Comparison of revenue and Expenditure.		Remarks.
			At	Per	Due.	Received.	Outstanding.	Timber expenses, under A I.	Quota of all other expenditure chargeable against timber, &c.	Total.	Surplus.	Deficit.	
					Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Public Works Department, Provincial Works, Naini Tal Sub-division.	Chir karis ...	171=260′	Various.	...	260 0 0	517 0 0	...	324 0 0	32 0 0	356 0 0	161 0 0	...	
	Chir planks ...	1,068=460′	Ditto.	...	257 0 0								
Public Works Department, Military Works, Naini Tal Sub-division.	Chir karis ...	48=54′	Ditto.	...	34 0 0	324 0 0	...	214 0 0	21 0 0	235 0 0	89 0 0	...	
	Chir planks ...	585=427′	Ditto.	...	290 0 0								
Ditto ...	Oak charcoal ...	50 Mds.	0-8-0	Md	25 0 0	25 0 0	...	47 0 0	3 0 0	50 0 0	...	25 0 0	
Commissariat Department, Naini Tal.	Firewood ...	25,862 ,,	46-14-0	% Mds.	12,123 0 0	12,123 0 0	...	7,961 0 0	1,589 0 0	9,550 0 0	2,573 0 0	...	
Commissariat Department, Ramkhet	Firewood ...	72,515 ,,	36-4-10	% Mds.	26,324 0 0	26,324 0 0	...	13,314 0 0	4,145 0 0	17,459 0 0	8,865 0 0	...	
		Total ...	...	...	39,313 0 0	39,313 0 0	...	21,860 0 0	5,790 0 0	27,650 0 0	11,688 0 0	25 0 0	
							Deduct deficit ...		...	...	25 0 0	...	
							Balance for the Department ...		...	...	11,663 0 0	...	

NAINI TAL;
The 17th July, 1885.

G. GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

FORM No. 65—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, CENTRAL CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts, for the year 1884-85.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value		Remarks.
	Number.	Cubic feet.	Value	Number.	Cubic feet.	Value	In favor of the year.	Against the year.	
TIMBER.			Rs.			Rs.			
Sál logs ...	565	30,583	30,583	78	3,408	2,556	...	...	
Haldu " ...	2	64	24	2	64	12	...	...	
Sál sleepers ...	372	406	300	116	155	140	...	...	
" karies ...	22,614	38,166	43,817	3,681	6,992	7,158	...	...	
Sein " ...	1,001	2,725	1,122	...	..	..	...	...	
Chir " ...	108	181	113	1,986	1,677	1,258	...	...	
Dhouri " ...	2	3	1	...	...	...	...	...	
Sein planks ...	4	4	1	..	...	...	...	...	
Chir " ...	1,015	568	355	12,275	5,674	4,255	...	...	
Sal joras ...	53	94	146	11	29	22	...	...	
Miscellaneous ballies ...	2,421	2,934	442	2,876	3,869	568	...	...	
Dhuras ...	31	4	4	146	18	19	...	...	
Sachra ...	...	...	...	72	12	9	...	...	
Korow ...	...	...	...	119	40	1	...	...	
Haris ...	30	15	4	26	13	3	...	...	
Yokes ...	15	2	2	10	1	1	...	...	
Total, Timber ...	28,233	75,892	77,134	20,498	21,452	16,002	...	61,132	
FIREWOOD & CHARCOAL, &c.									
Firewood ...	Mds. 14 859	26,961	5,050	4,201	8,229	1,406	...	...	
Charcoal ...	" 3,240	37,790	2,916	3,172	36,565	1,578	...	...	
Bamboos ...	Nos. 60 288	...	493	84,443	...	566	..	...	
Kiras ...	1,249	...	57	927	...	37	...	...	
Kurias ...	33,818	...	103	9,803	...	38	...	...	
Baskets	94	...	3	...	...	...	...	...	
Total, Fuel, &c. ...	...	64,751	8,622	...	44,794	3,625	...	4,997	
	Total	...	85,756	Total	...	19,627	...	66,129	

Net difference against the year, Rs. 66,129.

Abstract showing the value of Live and Dead Stock for the year 1884-85.

Description of Live and Dead Stock	On hand at commencement of the year		On hand at close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
LIVE STOCK.		Rs.		Rs.	Rs.	Rs.	
Elephants	8	13,700	8	12,000	...	...	
Bullocks	48	929	50	953	...	..	
Total, Live Stock ...	56	14,629	58	12,953	...	1,676	
DEAD STOCK							
Buildings	74	75,096	60	67,332	...	...	
Sheds	2	16	2	16	...	...	
Tools and plant	19,5[illegible]9	20,768	20,377	19,694	...	...	
Carts	26	612	26	624	...	...	
Almirahs	3	120	3	120	...	...	
Gunpowder, barrels ...	5	429	5	429	...	...	
Ditto loose, lb. ...	7	7	7	7	...	...	
Slow match, barrels ...	3	252	3	252	...	...	
Miscellaneous, arts.... ...	6	...	6	...	...	...	
Ditto, lb. ...	9	...	9	...	...	...	
Total, Dead Stock ...	19,693	97,320	20 518	88,474	...	8,846	
	Total	1,11,949	Total ...	1,01,427	...	10,522	

Net difference against the year, Rs. 10,522.

NAINI TAL;
The 17th July, 1885.

G GREIG,
Conservator of Forests, Central Circle, N.-W. P. and Oudh.

APPENDIX A.

Statement showing disposal of produce collected by Government Agency for 1884-85, compared with the result for 1883-84.

Divisions and descriptions of produce.	Sold locally viz., not brought to Depôt.				Depôt Transactions.															
					Balance in hand at commencement of year.				Brought to Depôt.				Total received in Depôt.				Removed by purchasers from Depôt.			
	1883-84.		1884-85.		1883-84.		1884-85.		1883-84.		1884-85.		1883-84.		1884-85.		1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Naini Tal.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, c. ft. ...	157	29	50	20	8,157	5,098	749	468	12,229	6,937	19,883	14,912	20,386	12,035	20,632	15,380	19,458	11,519	13,247	10,562
Firewood Mds ...	21,017	9,730	25,862	12,128	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal " ...	...	...	...	...	8,040	8,040	2,702	2,702	812	812	1,179	589	8,852	8,852	3,881	3,291	4,002	3,998	856	595
Lime " ...	...	...	...	...	924	462	...	...	82	41	...	...	1,006	503	...	...	1,000	500	...	...
Total ...	...	9,759	...	12,148	...	13,600	...	3,170	...	7,790	...	15,501	...	21,390	...	18,671	...	16,017	...	11,157
Rámkhet.																				
Firewood, Mds. ...	...	...	...	...	10,466	3,820	13,683	4,968	72,157	26,202	62,545	22,704	82,623	30,022	76,228	27,672	68,940	25,954	72,518	26,324
Kumaun.																				
Timber, c. ft. ...	171	111	...	...	96,462	1,08,814	72,138	76,214	28,987	32,522	1,886	2,616	1,25,449	1,41,336	74,024	78,830	53,292	65,115	58,185	54,019
Garhwál.																				
Timber, c. ft. ...	2,097	584	...	...	5,895	5,299	...	...	...	...	...	...	5,895	5,299	...	...	5,137	5,099	...	...
Ganges.																				
Timber, c. ft. ..	36	13	214	117	2,659	2,010	...	...	19,079	9,564	...	...	21,738	11,574	...	...	21,738	11,574	...	...
Poles, &c. " ...	40,046	10,474	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, No. ...	...	...	1,700	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	10,487	...	125	...	2,010	...	...	...	9,564	...	...	...	11,574	...	...	...	11,574	...	...
Jhánsi.																				
Timber, c. ft. ...	21	1	...	...	358	29	1,128	70	949	60	648	94	1,307	89	1,678	164	142	14	1,656	103
Firewood, Mds. "	...	...	...	...	661	80	676	82	1,999	287	2,238	270	2,660	367	2,914	352	1,945	279	1,685	286
Charcoal ...	...	...	...	...	550	218	538	214	207	102	19	228	757	320	657	442	152	78	169	98
Bamboos, No. ...	...	...	...	...	4,291	44	5,470	56	10,495	108	12,393	86	14,736	152	17,863	144	9 066	92	16,342	157
Minor produce kiras and kuriss, No.	...	...	...	...	26,066	183	27,238	104	39,111	53	37,456	369	65,177	236	64,694	473	37,764	430	55,587	300
	...	...	...	...	...	554	...	526	...	610	...	1,049	...	1,164	...	1,575	...	893	...	944

APPENDIX A.—(*continued*).

Statement showing disposal of produce collected by Government Agency for 1884-85, *compared with the result for* 1883-84—(continued).

Divisions and description of produce.	Depot Transaction—(*continued*).																			
	Converted in Depôt.				*Lost or written off as useless.*				*Used by the department from Depôt.*				*Total issues from Depôt.*				*Balance in hand at close of the year.*			
	1883-84.		1884-85.		1883-84.		1884-85.		1883-84.		1884-85.		1883 84.		1884 85		1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Naini Tal.																				
Timber, c. ft.... ...	...	...	...	...	...	...	...	...	179	52	34	15	19,637	11,571	13,281	10,577	749	468	7,351	a 5,513
Firewood, Mds. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal „ ...	...	...	...	...	...	...	...	...	2,148	2,148	...	...	6,150	6,146	836	595	2,702	2,702	3,945	b 1,520
Lime „ ...	...	...	...	...	...	...	...	...	5	3	...	...	1,006	503		...	...	...		
Total ...	...	...	...	...	...	...	...	...	...	2,203	...	15	...	18 220	...	11,172	...	3,17[illegible]	...	c 7,033
Ránikhet.																				
Firewood, Mds. ...	...	...	...	...	...	...	...	...	...	...	...	...	68,940	25,054	72,515	26,324	13,683	4,968	3,713	1,348
Kumaun																				
Timber, c. ft.... ...	...	...	1,886	2,616	...	...	1,255	11,220	19	7	1,450	1,087	53,311	65,'22	63,376	68,942	72,138	76,214	10,648	9,888
Garhwál.																				
Timber, c. ft.... ...	...	...	...	...	537	...	...	...	200	200	...	...	5,894	5,299	...	...	...	...	...	...
Ganges.																				
Timber, c. ft.... ...	...	...	...	...	...	...	...	...	...	...	...	...	21,738	11,574	...	...	...	...	...	...
Poles, &c. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	11,574	...	...	...	...	...	...
Jhánsi.																				
Timber, c. ft.... ...	...	...	...	...	...	...	94	10	37	5	...	...	179	19	1,750	113	1,128	70	26	2
Firewood, Mds. ...	...	...	...	...	38	5	741	140	1	...	...	...	1,984	285	2,426	426	676	82	488	58
Charcoal, „ ...	...	...	...	...	57	28	361	180	...	...	...	...	219	106	530	278	538	214	127	58
Bamboos, No. ...	...	...	...	...	...	...	690	3	200	4	...	...	9,266	96	16,942	160	5,470	56	921	10
Minor produce, kiras and kurias, No.	...	...	...	...	155	4	1,589	120	20	1	...	...	37,939	435	57,176	420	27 238	104	7,518	30
Total ...	...	...	...	...	...	38	...	453	...	10	...	...	...	941	...	1,397	...	526	...	178

(a) Rs 710 more, owing to sale of timber at increased rate. | (b) Rs. 1,176 less, owing to sale of Charcoal at a reduced rate. | (c) Add difference of Rs. 466 to the total of timber and Charcoal.

APPENDIX A.—(*continued*).

Statement showing disposal of produce collected by Government Agency, &c.—(continued).

Divisions and description of produce.	Sold locally, i. e., not brought to Depôt.				Depôt Transactions—(*contd*).															
					Balance in hand at commencement of year.				Brought to Depôt				Total received in Depôt.				Removed by purchasers from Depôt.			
	1882-83.		1883-84.		1882-83		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1882-83.	
	Quantity.	Value.	Quantity	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs		Rs.		Rs.
Lalitpur.																				
Timber, c. ft. ...	3,863	173	2,794	202	...	...	554	46	1,356	108	1,494	204	1,356	108	2,048	250	802	62	698	52
Bamboos, No. ...	4,89,149	1,757	3,28,069	1,170	1,554	9	49,254	326	3,85,097	2,222	3,97,520	2,024	3,86,651	2,231	3,76,774	2,350	3,37,397	1,905	2,94,062	1,864
Minor produce kurias, No.,	90,684	458	1,68,381	582	...	...	7,923	59	23,484	175	6,523	48	23,484	175	14,446	107	15,561	116	11,[illegible]	82
Total ...	...	2,388	..	1,954	...	9	...	431	...	2,505	...	2,276	...	2,514	...	2,707	...	2,083	..	1,938
Banda.																				
Timber, c. ft. ...	2,485	165	2,829	328	1,604	277	1,323	336	4,539	600	4,814	1,179	6,143	877	6,137	1,515	4,815	541	4,034	1,107
Bamboos, No. ...	20,710	200	25,702	162	700	7	5,564	111	16,796	168	1,625	12	17,496	175	7,189	123	11,93.	64	6,379	116
Lime, Mds.	1,140	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	240	171	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, Mds. ...	...	...	92	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charcoal	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	485	...	667	...	284	...	447	...	768		1,191	..	1,052	...	1,638	..	605	...	1,223
ABSTRACT FOR THE CIRCLE.																				
Timber, c. ft. ...	8,610	1,016	5,897	667	1,15,135	1,21,527	75,892	77,134	67,139	49,791	28,725	19,005	1,92,274	1,71,318	1,04,519	96,139	1,05,384	93,924	77,817	65,843
Firewood, Mds. ...	21,027	9,730	25,954	12,129	11,127	3,900	14,359	5,050	74,156	26,489	64,783	22,974	85,283	30,389	79,142	28,024	70,885	25,333	74,500	26,610
Charcoal „ ...	...	...	1	...	8,590	8,258	3,240	2,916	1,019	914	1,298	817	9,609	9,172	4,538	3,733	4,164	4,076	1,005	693
Lime „ ...	1,140	120	...	...	924	462	...	...	82	41	...	...	1,006	503	...	...	1,000	500	...	...
Poles, c. ft. ...	40,046	10,474	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, kurias, No. ...	5,08,859	1,957	2,55,471	1,340	6,545	60	60,288	493	4,12,338	2,498	3,41,538	2,124	4,18,883	2,558	4,01,826	2,617	3,58,392	2,061	3,16,783	2,077
Minor produce ...	90,684	458	1,68,621	753	26,065	183	35,161	163	62,595	228	43,979	417	88,661	411	79,140	580	53,922	546	66,761	382
Total ...	...	23,755	...	14,889	...	1,34,390	...	85,756	...	79,961	...	45,337	...	2,14,351	...	1,31,093	...	1,26,440	..	95,6[illegible]

APPENDIX A.—(*concluded*).

Statement showing disposal of produce by Government Agency, &c.—(concluded).

Diels on and description of produce.	Depot Transactions—(*concluded*).																			
	Converted in Depôt.				*Lost or written off as useless.*				*Used by the Department from Depôt.*				*Total issues from Depôt.*				*Balance in hand at close of year.*			
	1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.		1882-83.		1883-84.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Lalitpur.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, c. ft. ...	...	...	...	...	...	...	...	...	...	...	12	2	802	62	707	54	554	46	1,[illegible]	197
Bamboos, No. ...	...	...	...	...	...	...	...	...	...	...	...	...	3,37,397	1,905	2,94,062	[illegible]	49,254	326	83,712	515
Minor produce, kurias ...	...	...	...	...	...	...	...	...	...	...	...	...	15,561	116	11,174	82	7,923	49	[illegible]	25
Total ...	...	...	...	...	...	...	...	...	...	...		2	...	2,083	...	1,940	...	431	...	767
Banda.																				
Timber, c. ft. ...	...	...	...	...	...	...	17	2	6	...	...	...	4,621	541	4,051	1,109	1,323	336	2,086	402
Bamboos, No. ...	...	...	...	...	...	...	...	...	...	...	...	...	11,932	64	6,379	116	5,564	111	810	11
Lime, Mds. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	2	...	...	...	...	...	605	...	1,225	...	447	...	413
ABSTRACT FOR THE CIRCLE.																				
Timber, c. ft. ...	...	...	1,886	2,616	557	...	1,966	11,332	441	264	1,496	1,104	1,06,382	94,188	83,165	80,795	75,892	77,134	21,452	16,002
Firewood, Mds. ...	...	...	...	...	38	6	741	146	1	...	...	...	70,924	25,839	74,941	26,750	14,359	5,050	4,201	1,406
Charcoal " ...	...	...	...	...	57	28	361	180	2,148	2,148	...	...	6,369	6,252	1,166	873	3,240	2,916	3,172	1,578
Pine " ...	...	...	...	...	...	...	...	...	6	3	...	...	1,006	503	...	...	...	...	...	...
Poles, c. ft. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bamboos, No. ...	...	...	...	...	...	...	600	3	200	4	...	...	3,58,595	2,065	3,17,383	2,080	60,288	423	84,443	566
Minor produce, kurias ...	...	...	...	...	155	4	1,589	120	20	1	...	...	53,500	551	68,350	502	35,161	163	10,790	[illegible]
Total ...	...	...	...	2,616	...	38	...	11,675	...	2,420	...	1,104	...	1,28,898	...	1,11,000	...	85,756	...	19,627

Add Rs. 466, see note against Timber charcoal, Naini Tal Division.

APPENDIX B.

Statement of trees felled.

1.—Naini Tal Division.

Discription of trees.		Selection fellings. By Government agency. No.	C. ft	By purchasers. No.	C. ft.	By Public Works Department free of charge. No.	C. ft.	By village right-holders. No.	C ft.	Thinnings. By Government agency. No.	C. ft.	Total. No.	C. ft.	Remarks.
Chir		564	22,600	17	192	5	140	54	590	...	...	640	21,522	
Oak		150	8,900	76	384	...	...	...	...	...	...	226	9,284	
Miscellaneous		31	258	281	416	...	...	...	...	...	...	312	674	
Totals ...	1884-85	745	29,758	374	992	5	140	54	590	...	...	1,178	31,480	
	1883-84	529	20,988	1,406	5,025	488	10,345	1,645	3,375	...	...	4,068	39,733	
Differences. ...	More	216	8,770	...	...	...	...	...	...	...	...	...	...	
	Less	...	...	1,032	4,033	483	10,205	1,591	2,785	...	...	2,890	8,253	

2.—Ranikhet.

Discription of trees.		Selection fellings. By Government agency. No.	C. ft.	By purchasers. No.	C. ft.	By Public Works Department. No.	C. ft.	By village right-holders. No.	C. ft.	Clearances. By Government agency. No.	C. ft.	Total. No.	C. ft.	Remarks.
Chir		401	25,300	340	7,800	...	...	6,287	63,430	663	2,422	7,691	96,552	
Oak		81	8,253	1	100	...	...	403	2,015	1	40	486	10,408	
Miscellaneous		164	5,400	...	...	...	...	24	120	...	...	188	5,920	
Totals ...	1884-85	646	37,013	341	7,900	...	...	6,714	65,565	664	2,462	8,365	122,980	
	1883-84	1,647	29,338	248	17,419	90	270	8,546	1,00,694	3,416	35,006	13,947	1,82,727	
Differences	More	...	7,715	93	...	...	...	...	...	...	...	...	...	
	Less	1,001	...	...	9,519	90	270	1,832	35,129	2,752	32,544	5,582	69,747	

APPENDIX B.—(*continued*).

3. Kumaun.

Description of trees.	Selection Fellings. By Government agency. No.	C. ft.	By Contractors. No.	C. ft.	By village right holders. No.	C. ft.	Total. No.	C. ft.	Thinnings. By Government agency. No.	C. ft.	By Contractors. No.	C. ft.	By village right holders. No.	C. ft.	Total. No.	C. ft.	Clearances. No.	C. ft.	Grand Total. No.	C. ft.	
Sál	...	...	5,293	81,843	1,953	24,649	7,246	1,06,492	...	...	450	2,343	...	...	450	2,343			7,696	1,08,835	
Sein	...	...	632	17,019	...	...	632	17,019	...	...	...	...	...	...	...	...	*Nil.*		632	17,019	
[illegible]	...	...	...	...	10	78	10	78	...	...	...	...	...	...	...	...			10	78	
Miscellaneous ...	...	...	1,757	66,296	149	2,646	1,906	68,942	...	...	...	...	...	...	...	...			1,906	68,942	
Totals ... 1884-85...	...	...	7,682	1,65,158	2,112	27,373	9,794	1,92,531	...	...	450	2,343	...	...	450	2,343	...	...	10,244	1,94,874	Dry fallen timber,—
Totals ... 1883-84...	1,490	19,426	12,679	1,59,916	706	21,218	14,875	2,00,560	397	4,119	...	...	...	...	397	4,119	4,349	31,922	19,621	2,36,601	+1,32,470=327,344. +1,37,949=3,74,551.
Differences, More ...	...	...	...	5,242	1,406	6,155	...	...	...	...	450	2,343	...	...	53	...	...	...	...	...	
Differences, Less ...	1,490	19,426	4,997	...	...	...	5,081	8,029	397	4,119	...	...	...	...	...	1,776	4,349	31,922	9,377	41,727	

Besides the fellings (as above) there were exported 1,32,470 cubic feet of dry fallen timber—

Sal 86,804
Sein ... ... 350 } 1,32,470+1,94,874=3,27,354
Miscellaneous 43,316

4. Garhwál.

Description of trees.	Selection Fellings. By Government agency. No.	C. ft.	By Contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Thinnings.	Clearances.	Total. No.	C. ft.	
Sál	...	...	1,568	41,738	...	...	1,568	41,738	*Nil.*	*Nil.*	1,568	41,738	
Sein	...	...	748	20,844	...	...	748	20,844			748	20,844	
Miscellaneous ...	...	...	162	4,296	...	...	162	4,296			162	4,296	Dry fallen timber:—
Totals ... 1884-85	...	...	2,478	66,878	...	...	2,478	66,878	...	...	2,478	66,878	+1,34,539=2,01,417.
Totals ... 1883-84	...	...	13,400	1,06,762	16	551	13,416	1,07,313	...	...	13,416	1,07,313	+1,05,696=2,13,009.
Differences ... More	...	...	...	...	...	...	...	...	...	...	...	...	
Differences ... Less	...	...	10,922	39,884	16	551	10,938	40,435	...	...	10,938	40,435	

Besides the fellings (as above) there were exported 1,34,539 cubic feet of dry fallen timber, as follows:—

Sal ... 1,02,805 Cubic feet.
Sein ... 4,048 } =1,34,509×66,878=2,01,417; total outturn of year.
Miscellaneous, 28,266

APPENDIX B.—(*continued*).

6. Ganges.

Description of trees.	Selection Fellings. By Government agency. No.	C. ft.	By contractors. No.	C. ft.	By villagers. No.	C. ft.	Total. No.	C. ft.	Clearances. By contractors. No.	C. ft.	Total. No.	C. ft.	
Sál	...	...	...	...	12	224	12	224	...	...	12	224	
Sem	...	...	299	16,956	5	170	304	17,126	...	...	304	17,126	
Deodar	...	...	...	...	171	16,458	171	16,458	...	...	171	16,458	
Tún	...	...	...	...	1	15	1	15	...	...	1	15	
Chír	...	...	185	5,920	...	...	185	5,920	...	...	185	5,920	
Box	132	528	...	...	...	...	132	528	...	...	132	528	
Miscellaneous	...	...	133	2,293	20	225	153	2,518	8,744	8,910	8,897	11,428	
Totals ... 1884-85 ...	132	528	617	25,169	269	17,092	958	42,789	8,744	8,910	9,702	51,699	Dry fallen timber.
Totals ... 1883-84 ...	4,918	13,992	1,126	59,360	160	5,455	6,204	78,807	...	...	6,204	76,807	+19,983=71,582. +31,019=109,826.
Differences ... More ...	...	...	...	...	49	11,637	...	...	8,744	8,910	3,498	...	
Differences ... Less ...	4,786	13,464	509	34,191	...	...	5,246	36,013	...	...	...	27,108	

Besides the fellings (as above) there were exported 19,983 cubic feet of dry fallen timber :—

Sál	6,174	=19,983.
Sein	3,306	
Deodar	870	
Miscellaneous	9,633	

APPENDIX B.—(*concluded.*)

6. Jhánsi.

Description of trees.		Selection Fellings.								Thinnings.		Clearances.		Total.	
		By Government agency.		By contractors.		By villagers.		Total.							
		No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Miscellaneous		432	1,296	14	42	26	78	472	1,416	*Nil.*		*Nil.*		472	1,416
Totals ...	1884-85 ...	432	1,296	14	42	26	78	472	1,416	...		...		472	1,416
	1883-84 ...	561	1,583	70	210	29	87	660	1,980	...		...		660	1,980
Differences ...	More ...	...	...	...	...	...	...	...	...	...		...		...	...
	Less ...	129	287	56	168	3	9	188	564	...		...		188	564

7. Lalitpur.

Description of trees.		Selections Fellings.								Thinnings.		Clearances.		Total.	
		By Government agency.		By contractors.		By villagers.		Total.		By Government agency.		By Government agency.			
		No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Miscellaneous		1,482	4.228	4,630	8,180	545	800	6,657	13,208	16	35	11	25	6,684	13,268
Totals ...	1884-85 ...	1,482	4,228	4,630	8,180	545	800	6,657	13,208	16	35	11	25	6,684	13,268
	1883-84 ...	2,895	5,019	5,182	10,101	749	1,124	8,826	16,244	...	...	...	...	8,626	16,244
Differences ...	More ...	...	...	...	...	...	...	...	...	16	35	11	25	...	...
	Less ...	1,413	791	552	1,921	204	324	2,169	3,036	...	...	...	...	2,142	2,976

Abstract of trees felled for the Circle.

Description of trees.	Selection Fellings.								Thinnings.							
	By Government agency.		By contractors and purchasers.		By villagers.		Total.		By Government agency.		By contractors and purchasers.		By villagers.		Total.	
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.
Chir	965	43,600	543	13,912	6,346	64,160	7,853	121,672	...	...	...	...	...	...	...	...
Oak	231	17,153	77	484	403	2,015	711	19,652	...	...	...	...	...	...	...	...
Sál	...	...	6,861	123,581	1,965	24,873	8,826	148,454	...	...	450	2,343	...	...	450	2,343
Sein	...	...	1,679	54,819	5	170	1,684	54,989	...	...	...	...	...	...	...	...
Sisham	...	...	...	...	10	78	10	78	...	...	...	...	...	...	...	...
Tún	...	...	...	...	1	15	1	15	...	...	...	...	...	...	...	...
Deodar	...	...	...	...	171	16,458	171	16,458	...	...	...	...	...	...	...	...
Box	132	528	...	...	...	...	132	528	...	...	...	...	...	...	...	...
Miscellaneous ...	2,169	11,582	6,977	81,523	764	3,869	9,850	94,974	16	35	8,744	8,910	...	...	8,760	8,945
Totals 1884-85 ...	3,437	72,863	16,136	274,319	9,665	111,638	29,238	4,58,820	16	35	9,194	11,253	...	...	9,210	11,288
Totals 1883-84 ...	12,040	90,446	34,201	359,063	12,339	142,849	58,580	5,92,360	397	4,119	...	...	...	...	397	4,119
Differences More ...	...	...	...	...	...	...	...	...	...	...	9,194	11,253	...	...	8,813	7,169
Differences Less ...	8,643	17,583	18,065	84,744	2,674	31,211	29,342	133,540	381	4,084	...	...	...	...	...	...

Abstract of trees felled for the Circle—(concluded).

Description of trees.	Clearances.								Grand Total.		Add for dry fallen timber in Kumaun, Garhwál and Ganges Division.	Grand Total, including dry fallen timber.	Remarks.
	By Government agency.		By contractors and purchasers.		By villagers.		Total.						
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	Cubic feet.	Cubic feet.	
Chír	663	2,422	...	...	...	...	663	2,422	8,516	124,094	...	1,24,094	
Oak	1	40	...	...	...	...	1	40	712	19,692	...	19,692	
Sál	...	...	...	...	...	...	...	...	9,276	150,797	197,183	347,980	
Sein	...	...	...	...	...	...	...	...	1,684	54,989	7,704	[illegible]	
Sisham	...	...	...	...	...	...	...	...	10	78	...	78	
Tún	...	...	...	...	...	...	...	...	1	15	...	15	
Deodar	...	...	...	...	...	...	...	...	171	16,458	870	17,328	
Box	...	...	...	...	...	...	...	...	132	528	...	528	
Miscellaneous	11	25	...	...	...	...	11	25	18,621	105,944	81,235	187,179	
Totals ... 1884-85 ...	675	2,487	...	...	...	...	675	2,487	39,123	472,595	2,86,992	759,587	
Totals ... 1883-84 ...	7,765	66,928	...	...	...	...	7,765	66,928	66,742	663,407	2,43,645	907,052	
Differences More ...	...	...	...	...	...	...	...	...	...	...	...	...	
Differences Less ...	7,090	64,441	...	...	...	...	7,090	64,441	27,619	190,812	...	...	

DATED NAINI TAL:
The 17th July, 1885.

G. GREIG,
Conservator of Forests, Central Circle,
N.-W. Provinces and Oudh.

APPENDIX C.

Yield in Produce.

1.—Naini Tal Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	21,[illegible]0	13,631	21,172	15,072
Poles ... ... number ...	2,848	285	382	26
Firewood ... ... maunds ...	21,027	9,729	99,739	14,058
Charcoal ... ... ,, ...	658	658	1,179	589
Bingals ... ... loads ...	157	20	161	20
Garden pegs ... ... number ...	...	...	15,000	15
Minor produce	...	2,456	...	61
Grazing dues	...	82	...	58
Total ...	Various.	26,811	Various.	29,899

2.—Ranikhet Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	73,990	6,088	64,050	7,925
Poles ... ... number ...	8,983	3,984	2,480	724
Firewood ... ... maunds ...	76,443	26,927	61,889	21,875
Charcoal ... ... ,, ...	...	...	...	...
Minor produce	...	722	...	730
Grazing dues	...	572	...	499
Total ...	Various.	38,293	Various.	31,751

3.—Kumaún Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	374,550	1,81,447	3,19,446	1,37,490
Poles ... ... number ...	...	...	12,642	717
Bamboos ... ... scores ...	212,950	15,244	1,93,543	17,586
Firewood ... ... maunds ...	20,917	2,615	21,093	2,628
Charcoal ... ... ,, ...	19,588	2,448	12,292	1,537
Minor produce	...	16,049	...	14,756
Grazing dues	...	8,405	...	8,366
Total ...	Various.	2,26,208	Various.	1,83,014

4.—Garhwál Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	177,836	80,934	134,658	63,439
Saplings ... ... number ...	3,047	1,524	60,929	22,366
Poles ... ... ,, ...	37,264	13,939	5,727	2,664
Bamboos ... ... scores ...	375,432	27,282	202,883	17,197
Firewood ... ... maunds ...	67,323	1,296	43,391	884
Charcoal ... ... ,, ...	1,151	143	7,213	866
Minor produce	...	5,661	...	5,880
Grazing dues	...	2,975	...	2,497
Total ...	Various.	1,33,724	Various.	1,15,993

APPENDIX C.—(*concluded.*)

5.—Ganges Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	70,375	20,649	135,918	39,327
Poles ... ... number ...	35,809	10,564	6,59[illegible]	1,027
Bamboos ... ... scores ...	471,465	36,861	374,165	28,400
Firewood ... ... maunds ...	99,948	1,991	73,147	2,041
Minor produce	...	3,042	...	2,785
Grazing dues	...	2,353	...	2,937
Total ...	Various ...	75,460	Various.	76,517

6.—Jhánsi Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	631	69	446	106
Bamboos ... ... scores ...	10,551	112	20,092	232
Firewood ... ... maunds ...	19,430	1,903	12,667	1,384
Charcoal ... ... " ...	707	302	169	98
Minor produce	...	5,009	...	3,927
Total ...	Various.	7,395	Various.	5,747

7.—Lalitpur Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value	Quantity.	Value.
		Rs.		Rs.
Timber ... ... cubic feet ...	20	3	...	...
Poles ... ... number ...	11,522	1,308	8,163	859
Bamboos ... ... scores ...	58,497	4,784	41,280	3,687
Firewood and charcoal ... ... maunds ...	18,875	256	13,950	174
Minor produce	...	2,614	...	2,576
Grazing dues	...	2,873	...	2,541
Total ...	Various.	11,838	Various.	9,837

8.—Bánda Division.

Description.	1883-84.		1884-85.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Poles ... ... number ...	5,969	1,456	6,500	1,880
Bamboos ... ... scores ...	1,274	347	1,400	461
Firewood ... ... maunds ...	...	186	...	500
Charcoal ... ... " ...	...	40		...
Minor produce	...	2,794	...	2,084
Grazing dues	...	524	...	793
Total ...	Various.	5,347	Various.	6,018

Abstract for the Circle.

Description.		1883-84.		1884-85.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	cubic feet ...	719,2[illegible]	3,02,821	659,486	2,63,359
Poles	number ...	101,6[illegible]	31,486	103,414	8,095
Saplings	,, ...	3,0[illegible]	1,524		22,366
Firewood	maunds ...	513,4[illegible]	47,351	325,806	43,644
Charcoal	,, ...	2,5[illegible]	1,143	20,853	3,090
Ringal	loads ...	157	20	161	20
Bamboos	scores ...	1120,145	84,600	833,363	67,497
Garden pegs	number ...	...	...	15,000	15
Minor produce	...	...	38,347	...	32,799
Grazing dues	...	...	17,784	...	17,691
Total	...	Various.	5,25,076	Various.	4,58,776

DATED NAINI TAL :
The 17th July, 1885.

G. GREIG,
Conservator of Forests, Central Circle,
N.-W. Provinces and Oudh.

OUDH CIRCLE REPORT.

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No. 68L.G. OF 1885.

FROM

C. J. PONSONBY, ESQ.,

Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle,

To

J. WOODBURN, ESQ., C. S.,

Secy. to Govt., N.-W. P. and Oudh, in the Reve. (Forests) Dept.

DATED NAINI TAL, THE 22ND JULY, 1885.

SIR,

I HAVE the honour to submit herewith the Annual Progress Report of the Oudh Circle, North-Western Provinces and Oudh, for the year 1884-85.

2. I was called on, at short notice, to write the above, and much information I would have liked to insert I have been unable to give for want of time and ill-health combined.

I have the honour to be,

SIR,

Your most obedient servant,

C. J. PONSONBY,

Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

OUDH CIRCLE.

N.-W. PROVINCES AND OUDH.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION
FOR THE YEAR ENDING 31st MARCH, 1885.

By Mr. Ponsonby, Officiating Conservator of Forests, Oudh Circle.

INTRODUCTION.

Superior staff.—Captain Wood, Conservator, held charge of the Circle throughout the year. His time was divided as follows :—

In the Kheri Division	72	days.
At the Bahramghát Depôt	62	"
In the Bahraich Division	53	"
At Gorakhpur "Khas"	12	"
At Gonda "Khas"	3	"
In camp with the Hon'ble the Lieutenant-Governor, North-Western Provinces and Oudh	10	"
At Dehra and Rurki	18	"
Total ...	230	on tour.
Recess at Head-quarters ... ... A. ...	135	
	365	

2. *Divisions.*—The usual order is observed in this report, the divisions being named from west to east :—

Division.	Officers in charge.	From	To	Period.	Remarks.
Pilibhit ...	Mr. Ponsonby,	1st April, 1st October.	1st September, 31st March.	11 months ...	Mr Allan held charge of the current duties of the office while Mr. Ponsonby was absent on one month's privilege leave.
Bhira ...	Do. ...	Do. ...	Do. ...	Do. ...	Ditto.
	Mr. Allan ...	1st April, 12th October.	22nd August, 31st March.	10 months and 11 days.	Mr. Battie held charge of the Kheri Division, while Mr. Allan was in charge of the Pilibhit and Bhira offices, and on Forest leave.
Kheri ...	The following officers were attached to the Division :—				
	1. Mr. Battie ...	1st April ...	23rd October	6 months and 23 days.	Transferred to Madras on the 24th of October
	2. Mr. Pinder ...	1st April ...	30th June ...	3 months ...	This officer attended the Forest School at Dehra from 1st July to 31st October, from whence he was transferred direct to the Panjáb on promotion.
	3. Mr. Robsch .	1st December.	31st March,	4 months ...	Transferred from the Gonda Division.
	4. Mr. Clifford,	15th November.	22nd "	4 months and 7 days.	Temporarily lent from the School Circle, to which he returned on the 22nd of March, 1885.
Bahraich ...	Mr. Dansey ...	...	...	...	The whole year.
Gonda ...	Mr. Robsch ...	1st April ...	30th November.	8 months ...	Transferred to the Kheri Division.
"	Major Campbell,	1st December	31st March...	4 "	From the Central Circle.
Gorakhpur ...	Mr. A. Campbell,	...	...	...	The whole year.
Bahramghát Sale Depôt.	Babu Kanhya Lal.	...	...	...	The whole year.

3. *Inspection of Offices.*—All the Divisional Offices were inspected by the Conservator during the year under review. The Gonda office twice.

4. *The Conservator's time, how occupied.*—The Conservator's time during the year was fully taken up inspecting the Kheri Division sleeper operations, and arranging with the Deputy Commissioner of Bahraich for the exchange of certain lands between Sirdar Hira Singh and Government in the Forest Department. Some time was devoted to the Pilibhít forest settlement, which was brought to a satisfactory conclusion. Captain Wood also wrote exhaustive notes on the fuel supply of Oudh, and on grazing in the Oudh Circle. Also regarding the strip falling system inaugurated by him in the forests of the Mahárája of Kapurthala; these and other important matters prevented his visiting the Pilibhít, Gonda, and Gorakhpur forests.

5. *System of working in conjunction with district officers.*—District and Forest officers worked in laudable unison throughout the year, considering the different views held by individual officers.

6. *The year* 1884-85.—The year has been marked chiefly by the visit of the Hon'ble the Lieutenant-Governor to the Kheri and Bhira forests, and for the continued activity in sleeper operations, mainly in the Kheri Division, under the direct supervision of the Conservator, who was in the vicinity of the work for nearly 2½ months.

7. *Frost.*—There was very little frost in the Pilibhít and Bhira Divisions, but it was severe in Gorakhpur.

8. *Rainfall.*—

From 1st July to 30th September, 1884.

Mustafabad Forest station	42·65″
Pilibhít Khas, 10 miles from the forests	35 40″
More in the forests ...	7·25″

From 18th June to 6th October, 1884.

Bhira Division, Kheri District, at Marha Tál Forest station, Cis-Sarda ...	56·5″
At Kheri Khas, 21 miles distant from the forests	47·6″
More in the forests ...	8·9″
At the Muhamdi Tahsil east of Kheri	34·3″
At Nighason tahsil (north) in the vicinity of the main forest, Trans-Sarda,	53·5″

The rainfall and thermometer readings are to be kept in future in all the divisions of the Oudh Circle. A register is also to be kept of the depths of wells and tanks. They are to be measured on the first of each month in closed and in open forests.

CHAPTER I.

AREA AND BOUNDARIES.

9 *Area of the Circle.*—The report for 1883-84 shows ... 724,043 acres.

Added during 1884-85—		
(Grass land) in Gorakhpur	129	,,
Corrected area in the Pilibhít Division	9,365*	,,
Corrected area in the Bahraich ,, ...	43,520†	,,
Total ...	777,057	,,
From this must be deducted 27 acres made over to Public Works Department from the Kheri Division, and corrected area in the Bhira Division 13,280.*		
Total ...	13,307	,,
Total area of reserve forests on 1st April, 1885	763,750	,,
Add protected forests "The Katua Grants"	11,010	,,
Total area of Government forests in the Oudh Circle	774,760	,,
As against 1883-84	724,043	,,
More shown in 1884-85	50,717	,,

* Those corrected areas were supplied to Divisional Officer by Major Bailey, R. E., Superintendent, Forest Surveys, Dehra.

† Area carefully computed by Divisional Officer, Bahraich

Of the difference of 50,711, shown above, there is only an actual difference of 129 acres increase in Gorakhpur and 27 acres decrease in Kheri: actual difference in area 102 acres.

10. *The Katna Grants.*—Since the close of the financial year a preliminary notification under section 4 of Act VII of 1878 has been submitted to the Local Government with a view to creating the Katna Grants into reserved forests; the Deputy Commissioner of Kheri having no further need of them in connection with Colonel MacAndrew's Katna reclamation scheme.

11. *Boundaries.*—The forest boundaries of the Oudh Circle are becoming yearly more defined. There is, however, much yet to do. This useful and necessary work can hardly be proceeded with too quickly. The only profitable artificial boundary adopted for this circle appears to be a ditch or road—"daghbols" silt up, posts get burnt, eaten by white-ants, and destroyed by cattle. Where a ditch 3′ × 3′ has been dug, posts are an unnecessary expense.

12. *Boundary ditching.*—One hundred and three miles 4 furlongs of boundary have been ditched 3′ × 3′ during the year under review:—

Pilibhit ...	...	...	...	...	9	miles	4	furlongs.
Bhira ...	...	...	...	...	32	"	"	"
Gorakhpur ...	...	...	...	...	62	"	"	"
					103	"	4	"

This makes a total of 765 miles 6 furlongs to 31st March, 1885.

13. One thousand three hundred and thirty-five sál posts were erected in the Bahraich Division. A correct record of posts cannot be kept up with advantage for the reasons given in para. 11.

14. *Nepal Boundary.*—With reference to Local Government, No. 373, dated 6th June, 1882, Political Department, directing that a neutral belt should be cleared on the Nepal, as well as the British side of the frontier boundary, the Forest officers of the Kheri, Bahraich, and Gonda Divisions report that the Nepalese have not cleared any of the boundary on their side, as stipulated in the above resolution.

The following progress has been made in British territory:—

	Annual clearings
In the Kheri Division	13 miles 4 furlongs.
In the Gonda Division	37 miles
Total ...	50 miles 4 furlongs.

From the Bahraich Division report it appears that progress has also been made in that division. The whole of the Nepal frontier boundary marching with the Government forests in the Bahraich Division was cleared in 1871 and 1872 on the British side.

15. In the Kheri Division the whole of the forest boundary has been ditched, except where the Rája of Khairgarh claims land.

16. The southern boundary of the Gonda Division adjoining the Balrampur forests was cleared, 23 miles 7 furlongs.

17. The demarcation of the Gorakhpur Forest Division was completed by Mr. K. M. Nicholson and 60 miles of boundary laid down during the year.

The following is the expenditure on demarcation:—

1883-84. Rs.	1884-85. Rs.
1,757	4,803

Roads forming boundaries will be dealt with separately under "Roads."

CHAPTER II.

SURVEYS, WORKING PLANS, AND ANNUAL PLANS OF OPERATIONS

Working plans.—The only systematic attempt that has been made in this direction has been in the Pilibhit, Kheri, and Gorakhpur Divisions. In the former, with the object of regulating the continuous supply of fuel for the large demand at Bareilly, combined with the improvement of the forests operated on. Two systems are being

worked. Captain Wood's strip system tried with unqualified success in the Ekona estate of the Mahárája of Kapurthala, and simple eclaircie in alternate compartments, i.e., cutting out all crooked gnarled and unimproving subjects—leaving all straight improving trees. In the strip system, where everything is cut over, the yield of fuel is 200 maunds per acre. In the compartment fellings the yield is 150 maunds per acre, leaving about 50 maunds per acre of standing growth. The forest operated on has only been redeemed from scrub jungle since 1880. The effect of closing is very marked.

In the Kheri Division the usual selection fellings of 2,500 trees per annum has been carried out, and sleeper operations on a large scale again undertaken in closed and open forests promiscuously. (Forest officer's report for 1884-85, para. 33.)

In Gorakhpur Mr Amery, late Forest Officer, made a working plan 11 years ago, but it appears that this has not been carried out.

19. *Plans of work (annual).*—Annual plans of operations are submitted by Forest Officers through District Officers and Commissioners of Divisions to the Local Government.

These plans consist mainly in a *resumé* of the budget figures of the year into which, as many of the necessary works of the year as can have to fit. This appears altogether wrong—"putting the cart before the horse." After the plan of works has been approved the budget should be framed. Under the existing system constant appeals have to be made to the Local Government for "re-appropriations" and "re-distributions of figures.

20. The subject of "working plans" has been taken up by Government in a systematic manner, and great benefit may be looked for therefrom. Before a proper working plan can be framed, it is very necessary that the boundaries of the several forests should be permanently demarcated, and that good maps should exist on a scale of at least 4 inches to the mile on which all forested lands and open glades can be well depicted. It is not until these maps have been completed, showing the different classes of forest, and valuation surveys made, that a permanent working plan can be laid down with advantage.

21. It will be seen from the previous reports that the forests in this circle are still unripe for permanent working plans. With a view to obtain a speedy basis on which to frame regular working plans, the permanent demarcation of these forests will be pushed on with greater vigour. The forests in the Pilibhít* and Bhira Divisions will be ready for mapping by the 1st January, 1887. In the Kheri Division in one year after the Khairigarh Rája's claims have been settled by the Privy Council. In Bahraich there is still much to do. Another officer is urgently required to assist in this straggling division.

The Gonda and Gorakhpur Divisions are ready for mapping, and this important work might be commenced as soon as the forest survey branch can detach surveyors for the purpose. It would be unwise to wait for possible future additions to these divisions, as only grass and inferior forest lands are likely to be placed under the care of Government, the minute mapping of which would be unimportant, and they would not, in all probability, form part of the permanent working plan for some years.

22. *Tree measurements.*—These have been continued in Pilibhít, Bhira, Kheri and Bahraich.

The measurements are made three times a year.

An interesting fact has been ascertained by the March, June, and October measurements—(*a*) trees make their annual growth between June and October, that is, in the rains; (*b*) they remain dormant while hibernating between October and March; (*c*) decreasing during the hot months, March to June, often as much as half of the increase made by them in the previous rains. Eccentric individual subjects are, however, met with, but the above is the general rule.

*A map, four inches to the mile, was prepared (from the one-inch survey maps) for the Pilibhít division, but it is not correct. The recent forest settlement also will materially alters the features of this forest.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

(1)—Establishments.

23. The recasting of the permanent establishment of the Oudh Circle is about to be taken up by the Conservator; all the necessary information having been obtained and sifted. This will not entail much extra expense to the State, as it will be merely a matter of transfer from All to EI, but it will materially better the prospects of subordinates.

24. There is no use in disguising the fact that subordinate service in the Forest Department has not been popular hitherto in the Oudh Circle, and the reason is not far to seek. The work, if done well, is arduous. The life unhealthy and solitary. Occasional leave and a certainty of a fair pension are required to reconcile natives to serve in the forests. But the officials on the temporary establishment cannot take leave without forfeiting pay and acquire no claims to pension. They are in consequence dissatisfied with their position, and, as is to be expected, their work is unsatisfactory and half-hearted.

25. It is extremely advisable to raise the status of the subordinate service by offering permanent berths and better pay and prospects. This measure is likely to pay infinitely hereafter. Office establishments require strengthening. This would free Forest Officers for more useful out-door work.

It is absolutely necessary to have a trustworthy, intelligent, and active headman in each division, and he must be *always* in robust health. In many divisions there is no one capable of taking the place of the Ranger should he fall ill.

26. Forester Parmeswari Din (in executive charge of the Bhira Division) was brought on to the permanent establishment on a salary of Rs. 25 per mensem, and joined the Forest School at Dehra on the 1st of July, 1884.

27. The Conservator hopes to send four more Foresters on the 1st of July, 1886. It is to be regretted that satisfactory arrangements could not be made in the current year for sending Foresters to the Dehra School as we must look to the Forest School at Dehra for a better class of Rangers and Foresters.

(2)—General Protection and Breaches of Forest Law.

28. *General protection.*—From divisional reports it appears that the general protection was good, on the whole.

29. The opening of the closed area to shooting during half the year appears to have been permitted under a misconception in the *Oudh Circle.* It was considered a hardship on villagers, who make a livelihood by selling game, to exclude them entirely from the closed blocks. There does not appear to be sufficient grounds for this belief. Game cannot be hunted in the closed blocks, as the grass and leaves prevent stalking. It is only at night, when the deer leave the blocks, in which they shelter by day, and come out to browse in the neighbouring burnt "open" forests, that the village "shikári" is able to secure them. The privilege of entering the closed block is sometimes made use of to follow wounded game. It is a common practice to disembowel an animal, to lighten it, and to eat the liver on the spot, after roasting it on the embers of a fire. This practice is a source of danger, for it has been ascertained that a block protected from fire for three years will burn in August, during a break in the rains, if the rains have not been copious during June and July. Many grasses do not become humus till in the fourth year. Three successive crops can always be traced in an unburnt block. Little hardship would be inflicted by the blocks being closed to shooting all the year round. The patrolling establishment might then be reduced.

Breaches of Forest Law.

30. The following is a summary of Form No. 52 :—

Year.	Prosecutions.			Convictions.	Acquittals.	Cases pending at close of 1884-85.
	Pending.	New.	Total.			
1884-85	5	77	82	64	17	1
1883-84	2	59	61	45	11	5
Difference in 1884-85	+3	+18	+21	+19	+6	−4

The Forest Officer, Kheri, reports in paragraph 16 of his annual report that for the last two months there has not been a single case in his division. This was anticipated by the Conservator. The mere fact of a Forest Officer having magisterial powers is a preventive to crime.

31. Cases compounded under section 67 of the Forest Act :—

	Injury to forest by fire.	Unauthorised fellings or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total cases.	Amount received in compensation.
1884-85	...	21	2	2	25	Rs. 846-6-0 were realized on account of cases compounded.
1883-84	...	10	11	2	23	
Difference in 1884-85 ...	...	+11	−9	...	+2	

The falling off under cases of cattle trespass may safely be attributed to the forest boundary, being more defined and better known.

(3)—Forest Fires.

32. *Fire conservancy.*—The fire conservancy year dates from 1st July to 30th June. The following results, therefore, relate to the period ending 30th June, 1885.

33. The year has been a most favourable one. The heavy rains, in May, 1885, propagated a wonderful crop of rich green grass that in itself would be a deterrent against any disastrous fire unless a very strong wind was blowing. It has been noticed that the protection of forests from fire has the effect of first killing out the ranker grasses. These appear unable to force the young grass blades through two years of matted grass lying on the root stump.

34. The following statement shows the result of the fire conservancy operations during season 1885, as compared with season 1884 :—

Year.	Area attempted to be protected.	Failures.	Actually protected.	Cost.
				Rs. a. p.
1885	2,53,968	2,478	2,51,490	11,805 3 12
1884	1,88,867	41,186	1,42,681	10,471 15 9
1885	+65,101	−38,708	+1,03,809	+1,333 4 3

From the above it will be seen that 65,101 acres more were attempted to be protected from fire during the season 1885 than in 1884, that the failures were only 2,478 acres in 1885 as compared with 41,186 in 1884. A total area of 1,03,806 acres was actually protected in excess of 1884. The additions to the fire protected area during the year under review were—

	Acres.
Pilibhit Division	12,800
Bhira ditto	10,948
Bahraich ditto	40,303
Gorakhpur ditto	1,050
Total ...	65,101

35. By far the greater area of "failures" was in the Pilibhit Division. No less than six fires occurred; four in pargana Puranpur, and two in Pilibhit. They were promptly extinguished. This may be gleaned from the fact that the average did not exceed 370 acres to each fire. Chiefly open glades only were burnt. Now that the Forest Settlement of Pilibhit has been concluded, the people will understand, it is hoped, the advantages to themselves of forest conservancy contemplated by Government.

36. The percentage of area burnt and saved with cost of the year's conservancy is—

99·02 actually protected.
·98 burnt.
8·90 pies per acre cost.

(4)—Grazing and Fencing.

37. *Grazing.*—The Conservator wrote fully on this subject under date 20th January, 1885, by order of the Local Government. There remains little to be said.

During the year grazing was afforded to 316,539 head of cattle as under. Within three miles of the Government forests:—

			R.	a.	p.
	1,87,038 cows	@	0	2	0
	32,787 buffaloes	"	0	4	0
	7,056 {sheep goats}	"	0	0	6
Total ...	2,26,881				

Beyond three miles. "Outsiders."

			Rs.	a.	p.
	75,480 cows	@	0	8	0
	12,783 buffaloes	"	0	8	0
	1,395 {Sheep	"	0	1	0
	{Goats	"	0	1	0
Total ...	89,658				

38. The total area of the circle is 774,760 acres. Of this 558,056 acres are open to grazing, 216,704 acres closed.

The average of acres per head of cattle is 2·4 for privileged cattle,
6·2 for other cattle.

Total area open to grazing 558,056 } =1·7 acres per head of cattle.
Total number of cattle, 316,539 }

This is not excessive, and admits of more closing. Propositions for this will be submitted in the near future.

39. There are many open glades now included in the closed areas that could be excluded permanently by a ditch 4′ wide 3′×3′. This is a sufficient barrier against cattle trespass. Such a ditch as the above costs Rs. 50 per mile, and could be undertaken if fair grazing rates were instituted in lieu of the nominal dues at present in force. The exclusion of the open glades from the closed blocks would not only throw open large and more accessible areas to grazing, but would materially aid in fire

conservancy by having the grass eaten and trampled down. For the convenience of more accessible grazing grounds, cattle-owners would not object to pay a slightly enhanced grazing rate, which would not only liquidate the cost of the ditch in time, but pay for the annual clearance of the fire traces that would be necessary inside the ditch. Moreover, in this manner, more valuable forests could be closed without hardship to the people.

40. The grazing of a limited number of cattle in the Government forests is absolutely necessary.

The Forest Department, in the Oudh Circle, possesses much land fit for very little else than grazing grounds, at all events, for very many years to come.

It also possesses a sufficiently large area of wooded lands and forests that, with the continued care annually bestowed on them, can, and will without doubt, supply all practical demands for timber and fuel throughout the province of Oudh, and perhaps a fair portion of the North-Western Provinces as well.

It is sufficient at present to cultivate this forested area rather than to bring plain under trees.

41. The Forest Officer, Bhira, wrote in his annual Report for 1883-84, paragraph 6. *Grazing in the open forests without burning :—*

"The Inspector-General visited these forests. He suggested the advanced idea of permitting grazing in the open forests *only on the condition that they were not burnt.* I recommend this suggestion to the notice of the Deputy Commissioner (Mr. Gibson)."

The late Deputy Commissioner of Kheri, commenting on this, wrote :—

"Would not the advanced idea of stopping fires in grazing grounds stop also grazing, since the burning is intended to keep the grass fit for cattle?"

42. There is little doubt that the grass becomes long and unedible, because the area open to grazing is far in excess of the requirements of the cattle. If it were not so, they would keep down the grass to an edible size, then fires would not do so much harm, and there would always be a certain amount of reproduction in the portions abandoned to grazing purposes. Seedlings would get a footing in thorns. The common zizyphus bush* is a capital nurse, light and airy.

NATURAL REPRODUCTION.

43. Where the forests have been closed against fires and grazing, natural reproduction continues to progress, not so well in the Bhinga forests, Bahraich Division, as elsewhere, because it has been overgrazed. Assistance will have to be given by hoeing in the recently closed areas of this forest.

It has been admitted that the laws of nature are by far the best rules to follow. Worms teach the necessity of turning over the soil. This is marked by worm casts, appearing in great numbers in the closed areas. Equally conspicuous is the absence of worms in open and burnt forests. This would point to the unnatural condition of this latter class of forest.

44. The Forest Officer, Kheri, reports that grass has been completely killed out by the dense young forest growth (natural) in the vicinity of Dudua; also that the self-sown sissu seedlings noticed below Dudua in 1881, and on account of which 50 acres were closed against grazing, are now overtopping the coarse grass that for a time appeared to have the mastery.

45. The Gonda Forest Officer draws special attention to the quantity of Dhao (conocarpus latifolia) coming up under the hills in the Gonda Division.

46. 1884 appears to have been a bad year for Sál seed throughout the Circle.

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* Z. Vulgaris, Jhár-bér.

(6)—Artificial Reproduction.

47. *Plantations.*—

972 acres were shown on 1st April, 1884.
450 „ added (in Gorakhpur) during 1884-85.

1,422 Total.
Deduct 19 acres in Bahraich recommended in Conservator's report, 1883-84, paragraph 28.
1,403 Total area under plantation on 1st April, 1885.
Actual increase during 1884-85, 431 acres.

Plantations on a scale worthy of the name have only been taken in hand in Gorakhpur. They have been a qualified success: in Sonaripur and Sakhwi good, in Ramgarh doubtful. Sissu appears to be admirably adapted to Gorakhpur. The price ranges up to Rs. 3 per cubic feet, and the demand appears brisk.

The artificial reproduction of Khair in Gorakhpur has not been a success. Babul is to be tried in 1885-86.

48. *Experiments and cultural operations*—have been undertaken in most divisions, with more or less of success, but as these are still in the chrysalis state, they will be reported on hereafter, when more reliable information is available. The bambus near Dudua reported last year as 20′ high are now 30′.

49. *Cutting of climbers.*—During the year under review, 543 acres were cut over in a block near Dudua at a cost of Rs. 149-9-5, The creepers, though small, were numerous. Twenty-three thousand and forty acres were cleared of creepers in the Sohelwa forest, Bahraich Division, at a cost of Rs. 695 only. The creepers were very numerous and large, many measuring over 2′ in girth. The cost in this division compares most favorably with the work done at Dudua, which is very expensive, being 4 annas and 5 pies per acre against 5¾ pies per acre in Bahraich.

In the Gorakhpur Division it appears that a sum of Rs. 197 was spent on creeper cutting.

This most important work will be pursued with greater diligence. The damage done by creepers needs only to be seen to be understood. The mischief done ranks with fires or excessive grazing.

(8)—Exotic Trees.

50. The attempts made to introduce exotics has been unsuccessful. Some half a dozen eucalypti have survived in the Forest garden at Dudua. Carob is not adapted to this region.

Arboriculture.

51. The Forest officers, Pilibhít and Gorakhpur, have assisted their collectors in the matter of planting trees on district roads.

Eight miles of roadway, connecting the town of Pilibhít with the forests, is under treatment. The result will be given when the work has been completed.

The work done during the year in Gorakhpur is given in Appendix G. of this report.

9.—Communications and Buildings.

52. *Roads.*—During the year 103 miles of roadway were completed.

In Pilibhít	38·	
„ Bhira	26·6	64·6
„ Bahraich		30·6
„ Gonda		7·4
		103·0

making a total mileage of 981 miles in the Oudh Circle. No new roads were made in the Kheri or Gorakhpur Divisions.

Almost all the old roads were kept in repair throughout the circle. A few did not require repairs.

53. *Bridges.*—The large boat bridges at Shrinagar over the Sarda were established early in the cold season and maintained as usual.

All the minor bridges and culverts in the circle were kept in thorough repair.

54. *Buildings.*—Progress was made with four 1st class rest-houses, two in the Bahraich Division, one in the Kheri Division, and one in the Gorakhpur Division. A 2nd class rest-house in the Kheri Division at Changa Nala was also in course of construction. This building, when finished, will complete the chain of rest-houses in the Kheri Division.

No rest-houses were *completed* during the year. The total given for 1883-84 of 54 houses will remain the same for 1884-85.

55. *Wells.*—The number of masonry wells on 31st March, 1884 stood at 108. During 1884-85 one of the above (in the Bahraich Division) has been abandoned. Five* have been constructed, making a total of 112 masonry wells in the Circle on the 1st of April, 1885. Besides the above, there are seven semi-permanent wells and two tanks for watering cattle.

*2—Bhira.
2—Bahraich.
1—Gorakhpur.
—
5

These Government wells are a great boon to travellers. They are freely used by merchants passing to and from Nipal. The purity of the water has become famous.

56. The following figures give the expenditure incurred on communications, buildings and other works noted in the three preceding paragraphs :—

	Roads and bridges.	Buildings.	Wells and other works.	Total.
	Rs.	Rs.	Rs.	Rs.
Oudh Circle	20,370	17,146	3,378	40,894

57. *Rivers.*—The Forest Officer, Kheri, reports that the 1st class rest-house at Shitaba ghát, on the Koriali, is in danger of being washed away this rains. The river is already within 50 yards of the house.

58. The Collector of Gorakhpur still retains possession of the rivers in his district. The proceeds of sale of waif and stray timber is not credited to Government in the Forest Department, as is the case in other districts.

The Forest Department has to utilize the Pias and Rohin for rafting purposes, and has had, to a certain extent, to clear these rivers of snags. The snagging, rafting and the salvage of stray timber could be amalgamated with economy to the State.

CHAPTER IV.

YIELD AND WORKING.

59. The yield in produce is given at the end of this report in the usual form.

60. The following is an abstract of trees felled and their contents :—

	Selection fellings.		*Thinnings.*		*Clearances.*		*Total.*	
	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.
Oudh Circle ...	12,357	568,249	169,122	263,055	2,215,554	3,052,786	2,397,033	3,884,090

1.—Departmental Operations.

61. *Throughout the circle.*—Ten thousand, five hundred and seventeen mature sál trees, 1,312 asaina, and 528 miscellaneous trees were felled, 10,543 departmentally, and 1,814 by contractors, making 12,357 mature trees felled.

62. During the year 95,027 sál sleepers and 22,085 asaina sleepers were fashioned.

The following gives briefly the trading done in sleepers :—

Sál sleepers brought forward from 1883-84		165,263
Add those of 1884-85		95,027
Total ...		260,290
To this may be added Assistant Comptroller-General's "written back" sleepers of 1883-84		45,495
Total ...		305,785
Disposed of during 1884-85	109,689	155,184
Written back sleepers as above	45,495	
		150,601
Petty Account.		
By loss in transit	297	347
By rejections converted	50	
Balance, on 1st April, 1885 ...		150,254
Asaina sleepers brought forward from 1883-84 ...		59,660
Add those fashioned during 1884-85		22,085
Total ...		81,745
Sold during 1884-85	20,902	20,984
By rejections converted	82	
Balance, on 1st April, 1885 ...		60,761
Add sál sleepers		1,50,254
Total, sleeper stock on 1st April, 1885 ...		2,11,015

63. The following abstract of form 59 is compared with 1883-84 :—

Particulars.	Description.	1883-84.		1884-85.	
		Number.	Cubic feet.	Number.	Cubic feet.
Selection fellings, crooked and bad trees, and clearances.	Sál logs	37,087	1,242,316	11,451	412,813
	Sissu	...	...	...	...
	Tokoe logs	...	...	2	28
	Asaina	4,259	272,608	1,561	88,736
	Jamún	...	...	63	315
	Dhao axles	163	163	123	123
	Sál poles	125	2,929	...	...
	Asaina poles, &c. ...	...	...	1,029	1,056
	Sissu	...	...	1	1
Clearances	Sál props and posts ...	211	211	1,798	10,614
	Miscellaneous poles ...	240	600	722	1,805
	Kusam timber	2	16	...	...
Hollow trees	Hollow trees	13	208	...	...
	Canoes	127	...	...	...
	Sál sleepers	368,802	505,387	93,150	148,342
	Rejected sleepers ...	...	...	1,877	2,503
	Asaina sleepers ...	69,132	98,079	22,085	33,127
	Sál scantlings	495	1,205	2,982	3,038
	Asaina scantlings ...	946	946	..	...
	Sál planks	3,210	5,894	517	1,173
	„ Signal posts ...	23	512	4	92
	„ Karies	33	33	...	...
	Khair props	...	...	1	1
Conversion from selection and other fellings in the forests.	Sál slabs or pieces ...	188,372	377,978	37,366	55,988
	„ Pieces of scantling ...	326	500	...	577
	„ Off-cuts	20,077	20,077	...	...
	„ Stumps	440	440	...	...
	Sál bark ... Mds.	...	...	180	630
Thinnings	Firewood ... „	29,650	Mds.	64,028	223,202
	Charcoal ... „	...	...	50	...
	Drift and confiscated timber,	2,117	7,3[illegible]	216	791
	Do. Charcoal ... Mds.	45	...	20	...
	Total ... No.	6,96,280	25,31,934	1,74,948	9,84,955
	Total ... Mds.	29,695	...	64,272	...

64. The Nonpara-Nipalganj branche of the Bengal and North-Western Railway has been sanctioned, and the Engineer-in-Chief hopes to have the line in working order by the 1st of July, 1886. This line will be the making of the Chakia and Charda forests of the Bahraich Division.

65. *Thinning in Gorakhpur.*—Five hundred and seventy acres were thinned out of all bad growth at a cost of Rs. 3,609. The sale of the proceeds amounted to Rs. 9,296, giving a profit of Rs. 5,687, or nearly Rs. 10 per atre.

Bahramghát Saw-mills and Sale Depôt.

66. The following table gives the demand and supply at the Bahramghát Depôt saw-mills :—

Year I.	Balance II.	Received III.	Total IV.	Executed V.	Cancelled VI.	Total VII.	Balance VIII.
1883-84	4,733	51,479	56,212	45,541	3,216	48,757	7,455
1884-85	7,455	62,827	70,282	30,214	1,229	42,443	27,839

The outturn column V compares unfavourably with 1883-84, giving about 100 cubic feet per working day as against 150 cubic feet in 1883-84.

had to be cancelled as they could not be supplied in time and	12,229 C. ft.
remained over as unsatisfied indents on 1st April, 1885.	27,839 C. ft.
Total ...	40,068

This, as compared with the actual outturn of 30,214 cubic feet, clearly shows that the mills want enlarging and more machinery is required ; the supply at present being roughly only three-sevenths of the demand.

The boiler purchased from Roorkee in 1883-84 has not turned out well.

The pair of steam plough engines purchased from the Agricultural Department have been utilized during the year in pulling 3,183 logs out of the river at Bahramghát up to the depôt at a cost of Rs. 0-2-1¾ pie per log as against 4 annas per log by manual labour during 1883-84.

67. The abstract of form 65 given below shows the value of stock at the commencement and close of the year :—

Description.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.	
	Number or quantity.	Value.	Number or quantity.	Value.	In favour of the year.	Against the year.
		Rs.		Rs.		
Timber ... ... c. ft.	823,505	4,27,005	990,061	5,35,298	108,293	...
Firewood ... ... mds.	850	102	7,150	894	792	...
Live stock ... ... No.	35	15,499	37	15,538	39	...
Dead stock, including buildings, furniture, canoes and boats.	34,305	2,11,997	38,046	2,16,864	4,867	...
Total ...	...	6,54,603	...	7,68,594	113,991	...

2.—Removal of produce by purchasers.

68. The following is the summary of produce removed by purchasers during 1884-85 as compared with 1883-84 :—

Description.		1883-84.		1884-85.	
		Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.
Timber	c. ft.	130,996	43,432	66,700	22,233
Poles and saplings	No.	185,399	23,175	717,399	89,675
Bamboos	scores	46	58	5	...
Firewood	Mds.	98,544	32,116	253,772	14,027
Charcoal	"	36,221	32,116	22,328	3,425
Minor produce	...	...	36,879	...	42 928
Grazing dues	...	...	34,323	...	38,226
Drift timber	...	7,352	4,372	871	3,441
Total ...		...	2,06,471	...	2,13,955
		...	...	...	2,06,471
In favor of 1884-85					7,484

3.—Free grants of forest produce.

69. There is nothing new to note under this head. In Appendix E. will be found the usual detail of produce given free to villagers.

	Rs.	a.	p.
During 1884-85	77,666	1	1
" 1883-84	66,588	7	2
More free produce was distributed in 1884-85	11,077	9	11

4.—Summary showing the total yield of produce all kinds for the financial year 1884-85.

70. The above summary has been given as Appendix F., and shows the sum of Rs. 1,37,563 less than in 1883-84.

	Rs.
Total yield value 1883-84	8,45,096
Ditto 1884-85	7,07,533
Difference ...	1,37,563

71. *Catechu.*—During the year under review the revenue derived from catechu was very high—

	Rs.	
In the Kheri Division	11,272	33,976 vats at 0-12-0 each.
Do. Bahraich Ditto	10,554	
Do. Gonda Ditto	3,656	
Total 1884-85 ...	25,482	
Total 1883-84 ...	13,593	
More collected in 1884-85 ...	11,889	

This sudden rise has not been fully accounted for.

Concentrated essence of tannin from Sál bark.

72. Five maunds 20 seers were made and despatched to the Superintendent, Government Tannery, Cawnpore, with the request that he would be good enough to report on the quality and market value of the extract for tannin purposes.

73. *Yield compared with area.*—The following table gives an estimate of the yield per acre :—

Division	Area in acres.	Yield of timber in cubic feet.	Kind of timber.	Yield of timber per acre in cubic feet.	Total receipts.	Receipts per acre.	Total expenditure.	Expenditure per acre.	Total surplus or deficit.	Ratio of expenditure to receipts per cent.	Surplus per acre.	Remarks
Pilibhit ...	97,045	174,442	Sál and miscellaneous.	1·79	10,005	·10	25,839	·26	*—15,834	258	...	
Bhira ...	102,608	224,762	Ditto ditto.	2·19	9,382	·09	9,067	·08	+315	96	...	
Kheri ...	148,293	1,450,798	Sál, assina, sissu, khair and miscellaneous.	8·50	401,991	2·38	390,138	2·31	+11,853	97	·07	
Bahraich ...	208,000	514,408	Ditto ditto.	4·14	103,024	·49	37,936	·18	+65,088	36	·31	
Gonda ...	98,258	389,829	Sál, assina, sissu, dhao and miscellaneous.	1·42	27,551	·28	17,409	·17	+10,142	63	·10	
Gorakhpur ...	100,556	152,851	Sál, assina and miscellaneous.	·87	85,158	·85	46,749	·46	+38,409	54	·38	
Total 1884-85 ...	774,760	3,884,090		5·01	637,021	·82	550,758	·71	+86,263	86	·11	
Total 1883-84 ...	724,043	2,752,409		3·80	805,538	1·11	489,214	0·66	+316,324	67	·43	
	+50,717	+1,301,681		+1·21	—168,517	—·29	+61,544	0·65	—230,061	+19	—·32	

*Deficit.

CHAPTER V.

FINANCIAL RESULTS.

74. The financial results of the year under review as compared with the previous year are :—

Receipts.		Expenditure.		Surplus.	
1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
8,05,538	6,37,021	4,89,214	5,50,758	3,16,324	86,263
6,37,021	...	...	4,89,214	86,263	...
1,68,517	...	...	61,544	2,30,061	...

Giving Rs. 1,68,517 less revenue in 1884-85.
" 61,554 more expenditure in 1884-85.
and showing " 2,30,061 less surplus than in 1883-84.

But the revenue and expenditure of the one year varies with that of another and can hardly be expected to be constant with a fluctuating demand for forest produce.

75. The actual results of the year as compared with the "regular budget figures" stand as follows :—

	Receipts.		Expenditure.		Surplus.	
	1883-84.	1884-85.	1883-84.	1884-85.	1883-84.	1884-85.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Regular sanctioned budget figures ...	7,40,450	7,33,500	4,65,450	4,64,500	2,75,000	2,69,000
Actuals	8,05,538	6,37,021	4,89,214	5,50,758	3,16,323	86,263
	...	—96,479	...	+66,258	...	—1,82,737
	...	66,258	...	...	...	...
	...	1,62,737	...	...	...	...

The above shows a deficit in the expected surplus of Rs. 1,62,737 which can be more than accounted for as follows—3,037 sál sleepers were sold, but not paid for :—

	Rs.
During 1884-85	6,074
20,675 Aiena during 1884-85	31,013
Less dry wood and removed by purchasers than was anticipated in the regular budget	26,882
Increase of stock at sale depôt. sleepers, &c.	1,13,317
Total ...	1,78,886

76. But it appears necessary only to account for the deficit of Rs. 96,479, the difference between the regular estimated figures and the actuals of the year. This can be best shown in the following statement :—

Budget head.	Regular.	Actuals.	Difference. More.	Difference. Less.
I *a.*	534,500	462,382	...	72,118
„ *b.*	11,000	10,254	...	746
„ *c.*	...	18	18	...
II *a.*	76,700	49,818	...	26,882
„ *b.*	19,000	21,750	2,750	...
„ *d.*	42,300	38,226	...	4,074
„ *e.*	37,200	42,928	5,728	...
III	5,200	3,235	...	1,965
V *a.*	250	611	361	...
„ *b.*	50	241	191	...
„ *c.*	7,300	7,558	258	...
Total ...	7,33,500	637,021	9,306	105,785
Less	...	...	...	105,785
More	...	...	9,306	9,306
Total ...	...	...	...	96,479

Column 4—Requires no comment. There has been a slight increase of revenue under six heads.

Column 5.—The falling off of Rs. 72,118 has been partly accounted for above, namely, sleepers to the extent of Rs. 37,087 sold but not paid for during the year. The balance can be more than accounted for by the fact that all the sleepers intended for 1884-85 were not sold during the year, the financial results of which will appear in 1885-86. This swells the "stock in hand" of unsold sleepers, &c., to Rs. 1,13,317 in favor of the year as shown in form 65*a*.

Under II*a*. there is a falling off of Rs. 26,822. This is due to less dry timber removed by purchasers. There is a sum of Rs. 4,074 less realized on account of grazing dues II*d*. as compared with the regular figures; but the sum collected during the year compares favourably with that of the previous year 1883-84.

			Rs.
II*d*.	1884-85	... ...	38,226
	1883-84	... ...	34,323
	More collected 1884-85	...	3,903

It would appear that the revenue under this head had been slightly over-estimated in the regular estimate.

A.— Expenditure.

77. The regular estimate has been exceeded by Rs. 58,704 as shown below :—

Budget head.	Regular.	Actuals.	Difference. More.	Difference. Less.
	Rs.	Rs.	Rs.	Rs.
I *a.*	2,91,388	3,39,393	48,005	...
I *b.*	5,680	10,438	4,758	...
I *c.*	...	65	65	...
II	9,960	10,856	896	...
III	330	116	...	214
VI *a.*	200	57	...	143
,, *b.*	6,430	5,975	...	455
,, *c.*	3,015	1,140	...	1,875
VII *a.*	14,480	20,370	5,890	...
,, *b.*	17,060	17,146	86	...
,, *c.*	4,490	3,378	...	1,112
VIII *a.*	8,500	4,303	...	4,197
,, *b.*	210	21	...	189
,, *c.*	20	...	...	20
,, *d.*	5,100	6,164	1,064	...
,, *e.*	12,300	11,197	...	1,103
,, *f.*	4,015	9,138	5,123	...
XI *a.*	100	...	...	100
,, *b.*	1,105	1,116	11	...
,, *c.*	1,117	3,331	2,214	...
Total A	3,85,500	4,44,204	...	...
More	...	...	68,112	...
Less	...	...	9,408	9,408
			58,704	

78. It will be seen from the above statement that there has been a slight saving under 10 heads aggregating Rs. 9,408, and that 10 heads have been exceeded in all by Rs. 68,112, leaving the smaller items "more or less" to balance themselves. It appears necessary only to deal with the main causes that have contributed to the excess expenditure of Rs. 58,704.

79. Under A1., in the Khori Division, the regular budget has been exceeded by Rs. 48,005. Of this sum Rs. 7,633 was on account of sleeper operations generally during 1884-85, including extra carting and extra cost by more expeditious routes. The balance of Rs. 40,372 was paid, however, for sleepers sawn in 1883-84, and should have gone against that year.

80. In like manner the expenditure in excess under *Ib.* is represented by the sum of Rs. 4,248 expenditure on fuel operations in the Gorakhpur Division during 1883-84 shown in 1884-85.

81. Precisely in the same way VIII*f.* has been exceeded by a charge of Rs. 5,815 due to thinning operation in the Gorakhpur Division at Ramgarh and Tilkonia during 1883-84, and might have been charged to that year as well as to 1884-85.

The above three sums under—

	Rs.
Ia.	48,005
,, *b.*	4,248
VIII*f.*	5,815
Total ...	58,068

therefore represent, as near as it is practicable to go, the excess-expenditure during 1884-85 over the regular sanctioned budget.

B.—Establishment.

82. The regular estimate has been exceeded by Rs. 7,554. This is accounted for by the extra pay B1*b*. Rs. 6,006 and travelling allowance B11*b*. Rs. 2,379 not budgeted for.

Budget head.	Regular.	Actuals.	More.	Less.
	Rs.	Rs.		
I *a*.	16,750	18,000	1,250	...
„ *b*.	39,600	45,606	6,006	...
„ *c*.	17,420	15,261	...	2,159
„ *d*.	7,[illegible]	7,064	...	364
„ *e*.	...	50	50	...
II *a*.	1,600	1,757	157	...
„ *b*.	7,900	10,279	2,379	...
„ *c*	1,960	2,106	146	...
„ *d*.	2,003	1,924	...	79
III *a*.	87	96	9	...
„ *b*.	665	724	59	...
„ *c*	620	622	2	...
„ *d*	882	916	34	...
„ *e*	535	526	...	
„ *f*.	1,550	1,623	73	...
Total B. ...	99,000	1,06,534		
More ...			10,165	
Less ...			2,611	2,611
			7,554	

83. *Receipts.*—The receipts under main budget heads as shown annually are :—

Year.	I.	II.	III.	IV.	V.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1883-84	6,22,500	1,71,562	4,310	...	7,076	8,05,538
1884-85	4,72,564	1,52,723	3,234	...	8,410	6,37,021
						1,68,517
Less	1,49,936	18,839	1,076	...	...	1,69,851
More	...	...	...	...	1,334	1,334
						1,68,517

84. As compared with the regular figures they stand thus :—

Year.	I.	II.	III.	IV.	V.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Regular, 1884-85 ...	5,45,500	1,75,200	5,200	...	7,600	7,33,500
Actuals, 1884-85 ...	4,72,654	1,52,723	3,234	...	8,410	6,37,021
						96,479
Less	72,846	22,477	1,966	...	...	97,289
More	...	...	...	...	810	810
						96,479

85. *Under A., Expenditure :*—

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1883-84 ...	3,14,185	9,012	224	...	...	20,885	23,444	21,518	1,218	3,90,486
1884-85 ...	3,49,895	10,856	116	...	...	7,172	40,895	30,823	4,447	4,44,204
										53,718
More ...	35,710	1,844	...	...	...	...	17,451	9,305	3,229	67,539
Less ...	...	...	108	...	...	13,713	...	...	...	13,821
										53,718

86. Compared with the regular sanctioned estimate :—

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Regular figures, 1884-85,	2,27,068	9,960	330	...	...	9,045	36,030	30,145	2,322	3,85,500
Actuals, 1884-85 ...	3,49,895	10,856	116	...	...	7,172	40,895	30,823	4,447	4,44,204
										58,704
More	52,827	896	...	...	...	...	4,865	678	2,125	61,391
Less	...	...	214	...	...	2,473	...	...	...	2,687
										58,704

87. *Under B., Expenditure—*

Year.	I.	II.	III.	Total.
	Rs.	Rs.	Rs.	Rs.
1884-85	85,982	16,066	4,506	1,06,554
1883-84	79,732	14,321	4,675	98,728
				7,826
More	6,250	1,745	...	7,945
Less	...	...	169	169
				7,826

88. As compared with the regular figures, the financial results stand thus :—

	I.	II.	III.	Total.
	Rs.	Rs.	Rs.	Rs.
Actuals, 1884-85	85,981	16,066	4,506	1,06,554
Regular figures, 1884-85 ...	81,198	13,363	4,439	99,000
	4,783	2,703	67	7,554

89. A comparative statement of the financial results under the three main heads of expenditure as shown annually is given below for the years 1883-84, 1884-85 :—

Particulars.	1883-84.	1884-85.
I.	Rs.	Rs.
Receipts from timber and other produce removed from the forests by Government Agency.	6,23,174	4,73,071
Deduct expenditure on account of above, with share of establishment,	3,49,934	3,76,647
Leaving a profit on timber operations	2,73,240	96,424
II.		
Other receipts amount to	1,82,364	1,03,950
The cost of revenue collected, plus share of establishment, comes to...	63,499	77,127
Leaving a surplus	1,18,865	86,823
Add profit under main head I.	2,73,240	96,424
Total	3,92,105	1,83,247
III.		
From above deduct cost of works of conservancy and improvement, plus share of establishment.	75,781	96,984
Leaving a cash surplus of	3,16,324	86,263

90. A synopsis of the financial working of the Oudh Circle during 1884-85 :—

Receipts of the Department	6,37,021	
Expenditure ditto	5,50,758	
Surplus ...	86,263	86,263
Value of timber at commencement of the year	4,86,877	
Ditto at close of the year	6,00,194	
Difference in favor of the year	1,13,317	1,13,317
Value of live and dead stock at commencement of the year ...	1,67,726	
Ditto ditto at close of the year	1,68,400	
Difference in favor of the year	674	674
Total ...	2,00,254	2,00,254
Deduct outstanding at commencement of the year	1,52,197	
Balance ...	48,057	
Add outstanding on 1st April, 1885, Rs. 22,135, miscellaneous revenue + Rs. 37,087 (on account of sleepers) = Rs. 59,222 ...	59,222	
Total ...	1,07,279	
Add amount received in advance on account of value of sleepers ...	1,22,949	
Giving assets of the year at (*see* Comptroller-General's Form No. 56)	2,30,228	

91. It will be seen from Appendix E. that the sum of Rs. 77,666 was given away in forest produce. The above, with from two to three lakhs of rupees annually spent by Government in the vicinity of the forests, should in time create a fairly prosperous population.

Explanation of revenue due to the Department outstanding.

92. At the close of the year a sum of Rs. 22,135 was due to Government (Assistant Comptroller-General's Form No. 56). Of this—

	Rs.
In the Kheri Division	7,135
In the Bahraich Division	2,821
Total ...	9,956

are bad debts on account of grazing, and will have to be written off during 1885-86. The balance, Rs. 12,179, is recoverable.

93. The receipts, expenditure, and surplus of the year are compared in the statement below with the budget and revised estimates :—

1884-85.	Receipts.	Expenditure.	Surplus.
			Rs.
Budget estimate	5,68,900	3,69,907	1,98,993
Revised estimate	7,33,500	4,84,500	2,49,000
Actuals	6,37,021	5,50,758	86,263

CHAPTER VI.

GENERAL REMARKS.

94. All information not in the body of the report will be found in detail at the end in tabular form. Any information not in the statements attached was not available at the time the report was written. Detailed information has purposely been avoided in the report, as it appears again in the prescribed statements at the end.

95. *Produce from closed blocks.*—In some divisions the custom of leasing minor forest produce has been extended to the closed areas with advantage during the cold weather, such as honey and wax, grasses, drugs, and dyes. These, if not collected annually, cause a considerable loss of revenue to the State. It is to the contractor's advantage not to burn or damage the closed forests.

96. *Health.*—Sickness among Forest subordinates has been reported from Pilibhit, Gonda, and Gorakhpur. Cholera prevailed in the North-eastern corner of the Bahraich district, and interfered a good deal with road-widening and other works.

97. With reference to Government of India's Circular No. 4F. of 14th April, 1885, there are no areas in the Oudh Circle that, *as a rule*, escape from fire without the adoption of special measures for their protection.

98. *Divisional Officers.*—Each Divisional Officer in the Oudh Circle has done his duty to the best of his ability.

99. *Subordinate Forest Establishment.*—With the two following exceptions, the Forest establishment appears to have worked well :—

1. Kasim Khan ... } Senior Rangers of the old class, unfavourably reported
2. Amanut-ullah .. } on by their Divisional Officers.

100. *Office establishment.*—With the exception of Dwarka Prasad, Clerk, Gonda Division, all the office hands appear to have worked well.

C. J. PONSONBY,
Offg. Conservator, Oudh Circle, N.-W. P. and Oudh.

ANNUAL STATEMENTS.

ANNUAL FORM No. 49.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Area of Reserved Forests, 1884-85.

Division or range.	Civil district or territory.	Name of forest.	*Area on 1st April, 1884.*		*Added during the year.*	*Excluded or transferred to other heads.*	*Area on 31st March, 1885.*		No. and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Pilibhit Division ...	Pilibhit ...	Pilibhit Division ...	87,680	137	*9,365	...	97,045	152	...	*These additions and subtractions in this area of the reserved forests have been made in accordance with Major Bailey, Superintendent of Forest Survey's area statement.
Bhira Sub-division,	Kheri ...	Bhira Sub-division ...	1,04,878	164	...	*13,280	91,598	143		
Kheri (Trans-Sarda) Division.	Kheri ...	Newalkhar Sub-division. Khairigarh Sub-division.	1,68,320	263	...	†27	1,68,293	263	...	†27 acres made over to Public Works Department for roads as per G. O. No. 792F., dated 25th October, 1884, and No. $\frac{486}{25-4F.}$ of 1st November, 1884.
Bahraich Division,	Bahraich ...	Motipur Sub-division,	1,64,480	257	‡43,520	...	2,08,000	325	...	‡Area carefully computed by divisional officer.
Gonda ditto ...	Gonda ...	Bhinga ditto ...								
Gorakhpur ditto ...	Gorakhpur ...	Gonda Division ...	98,258	154	...	...	98,258	154	...	
		Gorakhpur ditto ...	1,00,427	157	129	...	1,00,556	157	No. 893 of 26th October, 1883.	The addition of 129 acres of grass lands in the Gorakhpur Division.
		Total ...	7,24,043	1,132	53,014	13,307	7,63,750	1,194		
			Area of protected forests, 1884-85.							
		The Katna Grants ...	...	...	11,010	...	11,010	17		
		Total ...	...	...	11,010	...	11,010	17		
		GRAND TOTAL ...	7,24,043	1,132	64,024	13,307	7,74,760	1,211		

Abstract.

	Bs.
On 1st April, 1884	7,24,043
Added during 1884-85	53,014
	7,77,057
Deducted during 1884-85	13,307
	7,63,750
Add protected forests, "The Katna Grants,"	11,010
Total area of Government forests in the Oudh Circle on 1st April, 1885	7,74,760
Shown on 31st March, 1884	7,24,043
More shown in 1884-85	50,717

NAINI TAL,
The 12th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No. 50.—(Prescribed.)

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Area of Plantations, 1884-85.

Division.	Name of plantation.	On 1st April, 1884.		Added during 1884-85.		On 31st March, 1885.		Remarks.
		Acres.	Cost.	Acres.	Cost.	Total area.	Total cost.	
			Rs.		Rs.		Rs.	
Bahraich ...	Nishangara ...	11	462	...	...	...	...	
	Kain ...	5	95	...	...	...	...	
	Dondra ...	2	112	...	...	...	...	
	Ponsonbyganj ...	1	11	...	...	...	...	
	Rawtara ...	...	53	...	4	...	...	
	Total ...	19	733	...	4	*19	737	*19 Acres deducted as recommended by Conservator in para. 28 of Annual Progress Report for 1883-84.
Gorakhpur ...	Ramgarh ...	303	9,218	...	1,390	303	10,608	
	Sonari ...	100	745	50	633	150	1 378	
	Sakhai ...	550	3,906	400	3,481	950	7,387	
	Total ...	953	13,869	450	5,504	1,403	19,373	
	Grand Total ...	972	14,602	450	5,508	1,422	20,110	
Pilibhit ...	Cultural operation ...	...	313	...	...	...	313	
Bhira ...	Ditto ...	...	73	...	131	...	204	
Kheri ...	Ditto ...	...	1,795	...	233	...	2,028	
Bahraich ...	Ditto ...	...	360	...	†246	...	606	
Gonda ...	Ditto ...	...	7	...	53	...	60	
	Total ...	...	2,548	...	663	...	3,211	
	Grand Total ...	972	17,150	450	6,171	1,422	23,321	
						*19		
						1,403		

† Rs. 8 are on account discrepancy noticed by Government of India, on Annual Report for 1883-84 and explained in this office No. 183L.G. of 26th March, 1885, and acknowledged in G. O. No. $\frac{229}{233-33}$, of 8th April 1885.

Abstract.

				Rs.
On 1st April,	1884	...	...	972
Actual increase,	1884-85	...	...	431
Area on 1st April,	1885	...	...	1,403
Total cost to end of	1884-85	...	...	23,321
" "	1883-84	...	...	17 150
Cost during	1884-85	...	...	6,171
" "	1883-84	...	...	4,337
More during	1884-85	...	...	1,834

Naini Tal,
The 14th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 51.—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Area of forest tracts protected from fire during the dry season of 1885 (*to accompany Report for* 1884-85.)

Division.	Forest tracts.	*Up to 30th June*, 1885.		*During dry season of* 1885.				Total cost.	Year in which protection commenced.	Remarks.
		Area actually protected.	Total cost.	Area attempted to be protected.	Failure.	Actually protected.	Amount expended.			
		Acres.	Rs. a. p.	Acres.	Acres.	Acres.	Rs. a. p.	Rs. a. p.		
Pilibhit ...	Pilibhit closed blocks ...	7,852	6,909 5 5	33,388	*2,220	31,168	2,494 4 11	9,403 10 4	1880-81.	* Of this 2,220 acres, 1,590 were in pargana Puranpur, the new Mainakote block, and 630 in pargana Pilibhit, chiefly open glades.
Bhira ...	Bhira ditto ...	15,850	7,585 14 4	26,878	...	26,878	2,006 4 10	9,592 3 2	1877 and 1885.	
Kheri ...	Kheri ditto ...	21,330	20,640 4 7	42,130	10	42,120	3,838 5 10	24,458 10 5	1872 and 1881.	
Bahraich ...	Bahraich ditto ...	36,679	19,655 8 8	76,982	23	76,959	1,650 4 0	15,305 12 8	1878 to 1885.	
Gorakhpur ...	Gorakhpur ditto ...	65,970	10,425 2 6	74,590	225	74,365	1,816 0 4	12,241 2 10	1875.	
	Total ...	147,681	59,196 3 6	253,968	2,478	251,490	11,805 3 11	71,001 7 5		
	1884 ...	...	...	188,867	41,186	147,681	10,471 15 8	59,196 3 6		
		...	...	+65,101	−38,708	+103,809	1,333 4 3	+11,805 3 11		

Charged in previous years	...	...	55,640 5 1	
Ditto in 1884-85 ...	...	...	11,196 7 10	1st April, 1884 to 31st March, 1885.
			66,836 12 11	
Ditto in 1885-86 ...	...	...	4,164 11 6	period 1st April, 1885 to 30th June, 1885.
	Total	...	71,001 7 5	

NAINI TAL:
The 19th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No. 52.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Prosecutions for breaches of Forest Rules during 1884-85, *tried by Magistrates.*

Forest Division and Civil District.	Cases pending from 1883-84.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forests by fire	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Pilibhit Division.														
Pilibhit District	1	1	4	3	3	11	12	9	17	3	9	12	26	...
Bhira Sub-division.														
Kheri District	...	1	3	...	...	4	4	...	...	3	5	3	5	1
Kheri Division.														
Kheri District	2	2	3	...	1	6	8	4	7	4	7	8	14	...
Bahramghât Division.														
Bara Banki District	...	...	...	...	1	1	1	1	1	...	...	1	1	...
Bahraich Division.														
Bahraich District	...	...	13	1	1	15	15	14	22	1	1	15	23	...
Gonda Division.														
Gonda District	...	...	5	18	...	23	23	21	58	2	3	23	61	...
Gorakhpur Division.														
Gorakhpur District	2	2	9	1	5	17	19	15	22	4	7	19	29	...
Total, 1884-85 ...	5	6	37	23	11	77	82	64	127	17	32	81	159	1
1883-84 ...	2	5	35	13	6	59	61	45	111	11	34	56	145	5
Difference, 1884-85	+ 3	+ 1	+ 2	+ 10	+ 5	+ 18	+ 21	+ 19	+ 16	+ 6	− 2	+ 25	+ 14	− 4

DATED CAMP vià PILIBHIT,
The 13th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX FORM No. 52A.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Cases compounded by Divisional Forest Officers during 1884-85.

Forest Division and Civil District.	Cases pending from 1883-84.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Pilibhit Division.														
Pilibhit District	...	...	1	1	...	2	2	2	8	...	...	2	8	...
Bhira Sub-division.														
Kheri District	...	...	2	...	...	2	2	2	4	...	...	2	4	...
Kheri Division.														
Kheri District	...	...	2	...	...	2	2	2	2	...	...	2	2	...
Bahramghât Division.														
Bara Banki District	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bahraich Division.														
Bahraich District	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gonda Division.														
Gonda District	...	...	8	1	...	9	9	9	30	...	...	9	30	...
Gorakhpur Division.														
Gorakhpur District	...	...	8	...	2	10	10	10	27	...	...	10	27	...
1884-85 ...	...	...	21	2	2	25	25	25	71	...	...	25	71	
1883-84 ...	...	...	19	11	2	23	23	23	25	...	...	23	25	
Difference, 1884-85 ...	...	...	+11	−9	...	+2	+2	+2	×46	...	...	+2	+46	

DATED CAMP *vid* PILIBHIT,
The 17th July, 1885.

C. J. PONSONBY,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

ANNUAL FORM No. 53.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of Revenue of the different Divisions, 1884-85.

Budget heads Receipts.	Direction.	Kheri Division.	Bhira Sub-division.	Bahramghât Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhît Division.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY:—									
a. Timber	...	2,17,626 7 2	46 2 0	1,50,720 4 3	55,497 11 6	9,088 0 3	29,346 6 7	62 0 0	4,62,381 15 9
b. Firewood and charcoal	...	...	...	...	...	335 13 0	9,690 0 5	228 7 0	10,254 4 5
c. Bamboos	...	...	...	...	...	...	...	...	...
d. Sandal-wood	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	...	...	...	...	...	18 0 0	18 0 0
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS:—									
a. Timber	...	8,186 5 6	2,910 12 6	...	17,009 15 9	4,715 12 6	15,321 4 6	1,674 5 3	49,818 3 0
b. Firewood and charcoal	...	400 4 0	546 15 9	...	547 0 0	1,181 5 5	14,645 15 3	4,428 1 3	21,748 9 8
c. Bamboos	...	...	...	...	0 5 0	...	...	...	0 5 0
d. Grazing and fodder grass	...	10,374 6 9	3,146 5 6	...	12,178 5 8	5,318 0 8	6,284 4 8	924 3 3	38,225 10 6
e. Other minor produce	...	8,837 0 4	2,548 15 8	...	15,427 0 6	6,578 0 9	8,118 11 7	1,418 10 0	42,928 6 10
III.—CONFISCATED DRIFT AND WAIF WOOD	...	1,101 14 3	...	39 14 0	1,400 0 0	166 11 4	68 0 0	458 0 0	3,234 7 7
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT:—									
a. Duty on foreign timber and other forest produce.	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...
V.—MISCELLANEOUS:—									
a. Fines and forfeitures	...	25 0 0	15 10 0	...	214 0 0	70 15 8	...	285 13 7	611 7 3
b. Refunds	10 4 0	188 7 8	14 6	...	41 0 0	...	...	...	240 10 2
c. Other sources	...	4,013 6 4	166 4 6	377 3 7	708 4 10	101 0 0	1,683 12 9	507 15 6	7,557 15 8
Total Receipts ...	10 4 0	2,50,753 4 2	9,382 0 5	1,51,137 5 10	1,03,023 11 3	27,555 11 7	85,158 7 9	10,005 7 10	6,37,021 4 10

CALCUTTA,
The 25th July, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 53.—[PRESCRIBED]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of Expenditure of the different Divisions, 1884-85.

Budget Heads.	Direction.	Kheri Division.	Bhira Sub-division.	Bahrámghát Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhít Division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the Forests by Government agency :—									
(a) Timber	...	3,03,268 15 8	130 9 6	27,218 12 9	2,013 2 4	4,101 13 11	2,650 3 5	...	3,39,392 9 7
(b) Firewood and charcoal	...	...	...	...	9 8 0	...	8,428 2 9	1,999 15 3	10,437 10 0
(c) Bamboos	...	...	...	...	...	...	...	...	...
(d) Sandal-wood	...	...	...	...	...	...	...	...	...
(e) Grass and other minor produce ...	...	...	...	...	...	65 2 0	...	...	65 2 3
II.—Timber and other produce removed from the Forests by consumers or purchasers	...	1,679 12 11	2,216 12 10	...	1,827 5 11	684 7 8	1,591 15 8	2,853 10 8	10,856 1 8
III.—Confiscated, drift and waif wood	...	45 12 10	...	...	...	64 0 0	...	6 2 0	115 14 10
IV.—Revenue from forests not managed by Government—									
(a) Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
(b) Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government ...	...	...	...	...	...	...	...	...	...
VI.—Live Stock, Stores, Tools and Plant :— ...									
(a) Purchase of cattle...	...	...	...	57 0 0	...	...	...	...	87 0 0
(b) Feed and keep of cattle	...	2,683 3 10	154 4 4	561 5 6	592 10 7	576 8 5	601 2 6	805 13 0	5,975 0 2
(c) Stores, tools and plant	...	349 9 6	100 10 9	76 4 0	29 9 9	323 8 0	251 13 0	9 0 0	1,140 7 0
VII.—Communications and Buildings :—									
(a) Roads and bridges	...	9,933 7 5	1,470 2 6	834 0 0	5,822 10 0	365 2 6	343 2 0	1,601 7 9	20,370 0 2
(b) Buildings	...	3,709 6 8	130 13 0	688 13 6	7,996 5 3	1,057 7 4	2,374 8 0	1,197 14 3	17,146 4 10
(c) Other works	...	1,428 13 4	434 11 7	...	943 12 6	...	536 0 6	34 13 11	3,378 3 10
VIII.—Demarcation, improvement and extension of forests :—									
(a) Demarcation	...	...	800 0 0	...	720 1 1	2 12 0	2,520 7 9	260 2 2	4,[illegible] 7 8
(b) Compensation for land and rights ...	...	...	20 9 10	...	...	...	...	...	20 9 10
(c) Surveys and working plans	...	...	...	...	...	...	...	...	...
(d) Plantations	...	233 4 11	131 3 8	...	241 0 9	53 6 0	5,504 9 8	...	6,163 9 0
(e) Protection from fire	...	2,918 12 0	2 000 0 0	...	2,039 9 10	195 12 0	1,852 11 3	2,698 10 9	11,196 [illegible] 10
(f) Other works	...	149 9 5	15 0 0	...	849 9 11	260 8 0	7,815 8 6	48 3 3	9,138 7 1

IX.—Miscellaneous:—									
(a) Refunds	...	...	...	...	...	...	...	...	...
(b) Law charges	...	...	...	...	...	...	1,112 3 11	4 0 3	1,116 3 11
(c) Other works	...	717 2 9	297 0 5	92 12 0	1,373 10 7	...	595 6 9	254 12 5	3,330 12 11
Total A.—Conservancy and Works ...	...	3,27,108 15 3	7,903 14 5	29,528 15 9	24,450 0 6	7,750 7 10	35,686 15 8	11,774 10 3	4,44,203 15 8
I.—Salaries:—									
(a) Conservators	18,000 0 0	...	...	...	...	...	...	...	18,000 0 0
(b) Superior Officers	...	16,779 0 5	...	2,464 8 3	6,600 0 0	4,850 0 0	4,200 0 0	10,712 14 6	45,606 7 2
(c) Subordinate Forest and Depôt Establishments,	...	4,728 5 5	802 13 8	182 15 6	2,771 0 6	1,564 0 0	4,614 15 9	596 8 2	15,260 11 0
(d) Office Establishments...	2,350 0 0	1 682 14 8	44 9 8	540 0 0	1,401 0 0	418 8 0	74 0 0	553 6 2	7,064 6 6
(e) Deputation and Special Allowances ...	...	50 0 0	...	...	...	...	...	...	50 0 0
II.—Travelling Allowances:—									
(a) Conservators	1,756 15 0	...	...	...	...	...	...	...	1,756 15 0
(b) Superior Officers	...	3,778 0 6	...	444 3 6	1,325 0 0	1,688 7 6	1,616 13 0	1,426 14 0	10,279 6 6
(c) Subordinate Forest and Depôt Establishments,	...	1,033 4 11	14 5 4	...	335 15 7	339 2 8	186 12 4	196 1 4	2,105 10 2
(d) Office Establishments	553 6 3	549 4 0	19 1 4	...	473 4 0	175 8 0	...	158 14 8	1,924 6 3
III.—Contingencies:—									
(a) Stationery	8 10 9	39 7 9	5 1 0	6 8 0	10 0 3	13 13 0	0 1 0	12 4 6	95 14 3
(b) Carriage of tents and records	242 4 0	102 14 0	38 11 9	...	177 8 0	96 12 3	22 2 0	44 1 6	724 5 6
(c) Rents, rates and taxes	213 0 0	...	104 0 0	...	0 8 6	100 0 0	100 0 0	104 0 0	624 8 6
(d) Pay of Police Guards...	...	246 10 6	...	192 0 0	116 0 4	178 8 0	55 0 0	127 5 5	915 8 3
(e) Official postage	162 7 0	100 10 0	30 1 6	78 11 0	47 11 0	31 12 0	38 13 6	36 0 6	526 2 6
(f) Sundries	332 3 2	464 14 8	105 0 1	36 8 0	228 8 4	201 12 3	153 1 5	100 11 3	1,622 11 2
Total B. Establishments... ...	23,618 14 2	29,555 6 10	1,163 12 4	3,945 6 3	13,486 8 6	9,658 3 8	11,061 11 0	14,064 2 0	1,06,554 0 9
Grand Total of Expenditure... ...	33,618 14 2	3,56,664 6 1	9,067 10 9	33,474 6 0	37,936 9 0	17,408 11 6	46,748 10 8	25,838 12 3	5,50,758 0 5

Calcutta:
The 5th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 54.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account current for the year 1884-85.

DR.

Heads of account.		Rs. a. p.	Rs. a. p.
To cash balance on 1st April, 1884		...	794 3 6
„ revenue as per annual summary (Form No. 53)		...	6,37,021 4 10
Service Fund.			
„ Military Fund, Bengal		...	63 0 0
„ Military Orphan Fund, Bengal		...	52 8 0
„ Uncovenanted Service Family Pension Fund, Bengal ...		...	390 6 0
„ Deposits		...	100 0 0
Forest Cash Remittances, Local.			
„ Forest cheques drawn		5,02,295 15 5	
„ Inter-divisional transfers		1,24,263 14 5	
			6,26,559 13 10
„ Advances recoverable		...	5,68,758 10 5
Account current (other Governments.)			
„ Government of India		768 3 8	
„ Government of Central Provinces		156 0 0	
			924 3 8
Inter-departmental transfers.			
„ Public Works Department (State Railways.)		8,245 12 7	
„ Ditto (other branches)		181 13 0	
Civil Department.			
„ Jails	37 0 0		
„ Mathematical Instrument Department	85 4 0		
		122 4 0	
			8,549 13 7
Total ...		...	18,43,213 15 10

CR.

Heads of account.		Rs. a. p.	Rs. a. p.
By expenditure as per annual summary (Form No. 53) ...		...	5,50,758 0 5
„ Deposits		...	128 8 0
Forest Cash Remittances (Local).			
„ Remittances to Treasury		2,72,648 0 2	
„ Inter-divisional transfers		1,29,099 13 9	
			4,01,747 13 11
„ Advances recoverable		...	5,25,920 11 1
Account current (other Governments).			
„ Government of India		3,20,480 11 1	
„ Government of Bengal		500 0 0	
„ Government of Madras		250 0 0	
„ Government of Panjáb		33 14 0	
			3,21,264 9 1
Inter-departmental transfers.			
„ Public Works Department, (State Railway)		11,469 11 8	
„ ditto, (other branches)		10,000 2 8	
Civil Department.			
„ Jails	16,837 15 6		
„ Miscellaneous	1,972 2 2		
		18,810 1 8	
„ Military Department, Bengal		2,137 13 1	
			42,417 13 1
„ Closing balance on 31st March, 1885		...	976 8 3
Total ...		...	18,43,213 15 10

CALCUTTA:
The 25th June, 1885.

M. ALGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 55.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for 1884-85.

Division.	*Department debtor.*			*Department creditor.*			*Balance due.*		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To department (Outstandings).	By department (Liabilities).	
	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction	...	1,481 6 10	1,481 6 10	194 3 8	1,370 9 3	1,564 12 11	83 6 1	...	
Kheri Division	...	4,27,947 12 8	4,27,947 12 8	90,452 9 7	3,97,243 7 5	4,87,696 1 0	59,748 4 4	...	
Bhira	...	10,112 1 4	10,112 1 4	813 11 11	10,190 6 3	11,004 2 2	892 0 10	...	
Bahramghát	193 15 2	4,360 3 6	4,554 2 8	1,352 14 3	3,231 12 8	4,584 10 11	30 8 3	...	
Bahraich	0 1 0	57,716 3 7	57,716 4 7	10,231 5 4	52,984 15 8	63,216 5 0	5,500 1 5	0 1 0	
Gonda	...	16,304 12 0	16,304 12 0	279 15 0	16,905 0 6	17,184 15 6	880 3 6	...	
Gorakhpur	...	34,772 3 6	34,772 3 6	12,320 7 7	27,312 7 8	39,632 15 3	4,860 11 9	...	
Pilibhít	...	16,063 15 0	16,063 15 0	1,348 2 6	16,681 15 8	18,030 2 2	1,966 3 2	...	
Total ...	194 0 2	5,68,758 10 5	5,68,952 10 7	1,16,993 5 10	5,25,920 11 1	6,42,914 0 11	73,961 7 4	0 1 0	

CALCUTTA:
The 25th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests)

ANNUAL FORM No. 56.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Revenue received and Outstandings on account of Revenue during 1884-85.

Division.	Particulars.	Outstanding at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Direction ...	Timber and other produce, &c. ...	...	10 4 0	10 4 0	10 4 0	...	
Kheri Division ...	Ditto ditto ...	6,847 11 1 —1,22,949 11 6	2,51,040 1 5	1,34,938 1 0	2,50,753 4 2	(a) 7,134 8 4 —1,22,949 11 6	(a) Revenue received in advance.
Bhira Sub-division ...	Ditto ditto ...	149 6 0	9,441 2 5	9,590 8 5	9,382 0 5	208 8 0	* Includes Rs. 3,407 written off Rs. 46-10-0 under Comptroller-General's letter No. 1221, dated 4th September, 1884, Rs. 3360-6-0 under Local Government No. 216F., dated 27th March, 1885.
Bahramghát do. ...	Ditto ditto ...	14,803 13 1 —1,530 0 0	1,40,578 10 6	1,58,852 7 7	1,51,137 5 10	2,715 1 9	
Bahraich do. ...	Ditto ditto ...	4,759 9 3	1,03,085 3 7	1,07,844 13 4	1,03,023 11 3	4,821 2 1	Total ... 3,407 0 0
Gonda do. ...	Ditto ditto ...	1,727 15 0	25,823 12 7	27,551 11 7	27,550 11 7	1 0 0	(b) Realization as per Form No 53 ... ... Rs. 6,37,021 a. p. 4 10
Gorakhpur do. ...	Ditto ditto ...	15,164 14 11	80,655 10 4	95,820 9 3	a88,565 7 9	7,255 1 6	Amount written off as noted above ... ... 3,[illegible] 0 0
Pilibhít do. ...	Ditto ditto ...	106 5 3	9,899 2 7	10,005 7 10	10,005 7 10	...	Total ... 6,40,428 4 10
	Total ...	43,559 11 1 —1,24,479 11 6	6,20,533 15 5	5,39,613 15 0	(b)6,40,428 4 10	22,135 5 8 —1,22,949 11 6	*From Public Department.* Rs. a. p. 2,7[illegible] 1 9; *From private purchasers.* 19,420 3 11
	Net Total ...	—80,920 0 5	6,20,533 15 5	5,39,613 15 0	6,40,428 4 10	—1,00,814 5 10	Deduct amount received in advance 1,22,949 8 10; Rs. a. p. 0 2 8 —1,20,234 7 1; 1[illegible] 1 3 Net revenue received in advance —1,00,814 5 10

CALCUTTA:
The 25th June, 1885.

M. A. EGERTON,
Assistant Comptroller-General (Forests).

ANNUAL FORM No. 57.—[PRESCRIBED.]

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Financial results of the year 1884-85.

Division	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection, and improvement of forests.	Total.		Remarks.
	Receipts. 1	Charges. 2	Receipts. 3	Charges. 4	Charges. 5	Receipts 6	Charges. 7	
	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs	
Pilibhít ..	308	2,[illegible]	9 698	13,157	13,307	10,006	28,464	−18,458
Bhira ...	46	130	9,337	5,406	6,156	9,383	11,692	−2,309
Kheri ...	2,17,627	3,57,240	33,130	19,599	21,173	4 01,894	3,98,012	+3,882
Barhamghát ...	1,51,137							
Bahraich ..	55,498	2,023	47,528	19,573	21,589	1,03 026	43,185	+59 841
Gonda ...	9,419	4,167	18,134	8,050	7,815	27,553	20,032	+7,521
Gorakhpur ...	39,036	11,087	46,1 3	11 342	26,944	85,159	49,373	+35,786
Total Rs. ...	4,73,071	3,76,647	1,63,950	77,127	96,984	6,37,021	5,50,758	
Charges ...	3,76,647	charges	77,127		Charges.	5,50,758		
Surplus on timber operations	96,424	surplu s,	86,823		Surplus.	86,263		
Add surplus on timber operations.	...	...	96,424					
Total ...	...	...	1,83,247		Expected and	surplus.	2,49,000	
Deduct charges of column 5.	...	...	96,984		Actual ...	...	86,263	
Actual surplus ...	...	...	86,263		Less realized,	...	1,62,737	

Receipts, 1884-85.

	Rs.
Regular estimate	7,33,500
Actuals	6,37 021
Less realized ...	96,479

Expenditure.

Actuals A and B	5,50,758
Regular estimate	4,84 500
Excess expenditure, 1884-85	66,258
Regular receipts	7,33,500
Regular expenditure	4,84,500
Expected surplus regular figures	2,49,000
Actual receipts	6,37,021
Actual expenditure	5,50,758
Actual surplus	86,263

C. J. PONSONBY,
Offg. Conser. of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 58—[SUGGESTED].

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Trees felled by Government Agency during the year 1884-85 (*exclusive of thinnings, &c., by Government Agency, for which see* 58*a*.)

Description of trees.	1st class above 6′ in girth	2nd class 6′ 4½″ in girth.	Total.	Remarks.
Sál	2,551	...	2,551	47 turned out bad — The usual annual selection fellings, Kheri division by working plan.
Asna ...	431	...	431	
Total ...	2,982	...	2,982	
Sál	...	6,739	6,739	Miscellaneous fellings of selected trees for sleepers, Kheri division. Sál ... ... 9,290 = 4,12,813 c. ft. Asna ... ... 1,253 = 88,736 ,,
Asna ...	822	...	822	
Total ...	3,804	6,739	10,543	Total ... 10,543 = 5,01,549

DATED NAINI TAL,
The 14th July, 1885.

C. J. PONSONBY,
Offg. Conser. of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 58A.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Summary of receipts and expenditure on departmental thinnings during the year 1884-85.

Division.	Description of timber.	On hand at commencement of the year.		Cut during the year.		Total.		Expenditure on year's cutting or thinning.		Sold or disposed of during the year.		On hand at close of the year.		Remarks.
		Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
			Rs.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	
Pilibhit ...	Sál koros (rafters) ...	...	...	132	9 0 0	132	9 0 0	132	2,000 0 0	132	9 0 0	...	...	
	Uprights and ridge poles,	...	...	93	23 4 0	93	23 4 0	93		60	18 4 0	33	5 0 0	
	Pieces of sál-wood ...	...	...	450	41 8 0	450	41 8 0	450		450	41 8 0	...	...	
	Oil-crushers ...	...	...	...	...	...	...	...		...	...	...	...	
	Firewood Mds.,	...	...	3,990	144 7 0	3,990	144 7 0	3,990		3,990	144 7 0	...	...	
	Ditto stacked "	850	170	9,180	1,101 0 0	10,030	1,271 0 0	10,030		*4,630	623 0 0	5,400	648 0 0	* 3,550 burnt, 380 loss by shrinking, and 700 sold.
	Sál bark "	...	...	180	18 0 0	180	18 0 0	180		180	18 0 0	...	...	
	Total ... No.	...	170	675	1,337 3 0	675	1,507 3 0	675	2,000 0 0	642	354 3 0	33	653 0 0	
	Total ... Mds.	850		13,350		14,200		14,200		8,800		5,400		
Bhira ...	Beams and poles ...	...	...	845	113 6 0	845	113 6 0	845	130 9 6	172	44 6 0	673	69 0 0	
	Pieces of wood ...	...	...	25	4 0 0	25	4 0 0	25		10	2 0 0	15	2 0 0	
	Firewood Mds.,	...	...	1,750	333 0 0	1,750	333 0 0	1,750		...	...	1,750	333 0 0	
	Total ... No.	...	...	870	450 6 0	870	450 6 0	870	130 9 6	182	46 6 0	688	404 0 0	
	Total ... Mds.	...	...	1,750		1,750		1,750				1,750		
Goxda ...	Sál poles and saplings,	...	...	118	213 1 2	118	213 1 2	118	7,700 14 3	118	213 1 2	...	...	
	Dhao axles ...	...	...	123	61 14 0	123	61 14 0	123		123	61 14 0	...	...	
	Khair props ...	...	...	1	1 0 0	1	1 0 0	1		1	1 0 0	...	...	
	Asna poles ...	...	...	9	18 0 0	9	18 0 0	9		9	18 0 0	...	...	
	Jamun poles ...	...	...	30	3 2 11	30	3 2 11	30		30	3 2 11	...	...	
	Sissu " ...	...	...	1	0 4 0	1	0 4 0	1		1	0 4 0	...	...	
	Sál scantlings ...	...	...	2,978	7,403 8 2	2,978	7,403 8 2	2,978		2,978	7,403 8 2	...	...	
	Total ...	...	...	3,260	7,700 14 3	3,260	7,700 14 3	3,260	7,700 14 3	3,260	7,700 14 3	...	...	
Gorakhpur,	Sál ballas (beam) ...	...	...	3,870	2,000 1 0	3,870	2,000 1 0	3,870	6,421 0 5*	3,870	2,000 1 0	...	...	
	Sál koros (rafters) ...	...	...	619	83 12 0	619	83 12 0	619		619	83 12 0	...	...	
	Sal dhoras (axles) ...	...	...	7	5 12 0	7	5 12 0	7		7	5 12 0	...	...	
	Asna ballies (poles) ...	...	...	6	3 8 0	6	3 8 0	6		6	3 8 0	...	...	
	Mahua trees ...	...	...	1	10 0 0	1	10 0 0	1		1	10 0 0	...	...	
	Jamun ...	...	...	10	3 12 0	10	3 12 0	10		10	3 12 0	...	...	* The sum of Rs. 2,790 is included on account of last year's operations.
	Gharsinghi ...	...	...	2	4 8 0	2	4 8 0	2		2	4 8 0	...	...	
	Pairua koro ...	...	...	2	0 5 0	2	0 5 0	2		2	0 5 0	...	...	
	Firewood ...	...	5,755	65,180 Mds.	7,184 2 9	65,180 Mds.	12,939 2 9	65,180 Mds.		65,180 Mds.	12,150 10 9	...	788 8 0	Due from Kutwa Chaudhry.
	Total ... No.	...	5,755	4,517	9,295 12 9	4,517	15,050 12 9	4,517	6,421 0 5	4,517	14,262 4 9	...	788 8 0	
	Total ... Mds.	...	...	65,180		65,180		65,180		65,180				
	GRAND TOTAL ... No.	...	5,925	9,322	18,784 4 0	9,322	24,709 4 0	9,322	16,252 8 2	8,601	22,863 12 0	721	1,845 8 0	
	GRAND TOTAL ... Mds.	850	...	80,280		81,130		80,280		73,960		7,150		

N.B.—No "thinnings" in the Kheri or Bahraich Divisions.—C. J. P.

DATED NAINI TAL;
The 14th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 59—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Outturn of timber and other produce cut and collected by Government agency during the year 1884-85.

Name of Division.	How obtained.	Produce cut and collected. Description.	Number or quantity.	Cubic feet.	Remarks.
Pilibhit ...	Thinnings ...	Upright and ridge poles.	93	473	
		Rafters	132	210	
		Pieces of sal wood ...	450	577	
		Stacked fuel Mds. ...	9,180	32,130	
		Firewood	3,990	13,965	
		Sal bark	180	610	
		Total ... No. ...	675	47,985	
		Total ... Mds. ...	13,350		
Dhira ...	Thinnings ...	Poles	845	7,605	
		Pieces of wood ...	25	45	
		Firewood Mds. ...	1,750	5,250	
		Total ... No. ...	870	12,900	
		Total ... Mds. ...	1,750		
Kheri ...	Selection fellings ...	Sál logs	2,989	1,56,275	Obtained from previous year's felling 285, logs and 161 pieces.
		Sál pieces	2,046	44,885	
	Crooked trees fellings,	Sál logs	6,270	2,09,901	
		Sal pieces	146	1,752	
	Fellings	Asna logs	1,346	36,156	
		Asna pieces ...	215	2,584	
		Sál poles	4	37	
		Miscellaneous poles ...	722	1,805	
	Conversions ...	Sál sleepers 6′ × 8″ × 4″	1,943	2,591	
		Ditto 6′ × 8″ × 4½″	87,704	1,31,556	
		Ditto 10′ × 10″ × 5″	1,662	5,655	
		Ditto 10′ × 10″ × 8″	928	5,720	
		Ditto 15′ × 10″ × 5″	316	1,613	
		Ditto 15′ × 10″ × 8″	117	987	
		Asna 6 × 8″ × 4″½	22,085	33,127	
		Sál signal posts ...	4	92	
		Sál scantlings ...	4	60	
		Sal planks ...	517	1,173	
		Sál pieces ...	311	3,732	
		Sál slabs offcuts ...	961	961	
	Collection ...	Drift timber ...	49	196	
		Total ...	1,30,339	6,90,354	
Bahraich ...	Clearances ...	Sál poles	13	132	
		Huldu logs ...	2	28	
		Charcoal mds. ...	50	...	
	Conversions ...	Rejected sleepers ...	1,877	2,503	
		Offcuts, odds and ends of logs.	35,619	51,250	
		Total ... No. ...	37,511	53,913	
		Total ... Mds. ...	50		
Gonda ...	Thinnings ...	Sál poles and saplings, &c.	118	1,426	
		Dhao axles ...	123	123	
		Khair props ...	1	1	
		Asna poles ...	9	36	
		Jamun	30	51	
		Sissu	1	1	
		Sal scantlings ...	2,978	2,978	
	Drift collection ...	Sál logs and poles ...	15	60	
		Sissu ditto ...	95	95	
		Asna ditto ...	8	80	
		Tikoe ditto ...	29	290	
		Jamun ditto ...	51	51	
		Miscellaneous ...	19	19	
		Grasses Mds. ...	16	...	
		Lime	2	...	
		Charcoal	2	...	
		Total ... No. ...	3,427	5,211	
		Total ... Mds. ...	20	...	

N B.—It will be noticed that more logs are shown in this statement than trees felled in the "selection fellings:" the reason of this is that some trees yield two logs.

Again, in Form 58 more trees are shown as felled for sleepers than logs shown in this statement; the reason is that only inferior trees were felled for sleepers, and when felled it was found that they were little better than firewood—and would not yield what might be termed "logs."—C. J. P.

FORM No. 59—(SUGGESTED).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Outturn of timber and other produce cut and collected by Government agency during the year 1884-85—(concluded.)

Division.	How obtained.	Produce cut and collected. Description.	Number or quantity.	Cubic feet.	Remarks.
Gorakhpur ...	Fellings ...	Sál beams ...	338	476	
		Sál rafters ...	255	255	
		Sál sleepers ...	480	720	
	Conversions ...	Asna beams ...	675	675	
	Fellings ...	Jamun and Gular logs,	33	264	
		Asna rafters ...	345	345	
		Firewood, mds. ...	49,102	1,71,857	
		Total ... No. ...	2,126	1,74,592	
		Total ... Mds. ...	49,102	...	
		GRAND TOTAL No. ...	174,948	9,84,955	
		GRAND TOTAL Mds. ...	64,272	...	
		Abstract of the Circle.			
		Sál logs	11,451	4,12,813	
		Asna logs	1,561	86,736	
		Sál sleepers ...	93,150	1,48,342	
		Asna „ ...	22,085	33,127	
		Rejected sál sleepers ...	1,877	2,503	
		Sál scantlings ...	2,982	3,038	
		„ props, posts, poles...	1,798	10,614	
		Ballas saplings, &c. ...			
		Sál signal posts ...	4	92	
		„ planks ...	517	1,173	
		„ pieces, slabs, offcuts	37,366	55,988	
		Ditto ditto ...	...	577	
		Tikos logs ...	2	28	
		Dhao axles ...	123	123	
		Khair props ...	1	1	
		Asna poles and ballas, koros, &c.	1,029	1,056	
		Jamun ...	63	315	
		Sissu ...	1	1	
		Miscellaneous poles ...	722	1,805	
		Sál bark, Mds. ...	180	630	
		Firewood „ ...	64,022	2,23,202	
		Charcoal „ ...	50	...	
		Drift timber No. ..	216	791	
		„ lime, grasses and Charcoal, Mds.	20	...	
		Total ... No. ...	1,74,948	9,84,955	
		Total ... Mds. ..	64,272	...	

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 60—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce received from Forests in Sale Depôts, during the year 1884-85.

Division.	Depôt.	Produce received. Description.	Number or quantity.	Cubic feet.	Remarks.
Kheri ...	Bahramghát,	Sál logs ..	8,183	1,66,468	
		Sál log recovered from river.	1	73	Departmental log lost in former year.
		Do. scantlings ...	7,446	8,608	
		Do. sleepers ...	1,40,447	1,93,215	
		Asna „ ...	30,648	40,889	
		Miscellaneous ...	838	1,257	
		Waif sál planks ...	45	80	
		Total ...	1,82,608	4,10,540	

DATED NAINI TAL;
The 14th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 61.—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Sale of timber and other produce cut and collected by Government agency during the year 1881-85.

Division.	Depôt or locality.	Produce sold. Description.	Number or quantity.	Cubic feet.	Remarks.
		Part I.—"Sold from Depôt."			
Bahramghát,	Bahramghát Depôt.	Sál logs	101	3,818	
		Sissu logs	42	896	
		Sál scantlings	95,342	59,022	
		„ sleepers	*25,993	34,998	*This includes 10,200 sleepers written back from last year's accounts as per Comptroller-General's order No. 608, dated 17th June, 1884.
		Asna scantlings	1,863	906	
		„ sleepers	227	328	
		Sissu scantlings	409	96	
		Pieces of sál logs	218	2,294	
		„ of asna logs	7	84	
		Sál offcuts	15,360	12,265	
		Asna „	144	96	
		Sissu „	170	75	
		Pieces of Sissu logs	1	18	
		Miscellaneous poles... ...	116	174	
	Lucknow Depôt.	Sál scantlings	4,671	5,742	
		Dhamin scantlings	3	1	
		Sál offcuts	12,046	8,011	
		Asna „	50	33	
		Miscellaneous	24	36	
	Fyzabad ...	Drift pieces	45	80	
		Total ...	1,56,832	1,28,078	
		Part II.—"Sold locally."			
Pilibhít ...	Kali Lar ...	Upright and ridge poles ...	60	315	
		Rafters	132	210	
		Pieces of sál wood	450	577	
		Stacked fuel Mds.	709	2,450	
		Firewood „	3,990	13,965	
		Sál bark „	180	630	
		Total ... No. ...	642	18,147	
		Total ... Mds. ...	4,870	...	
Bhira Sub-division.	Salabatnagar.	Poles	172	1,575	
		Pieces of wood	10	18	
		Total ...	182	1,593	
Kheri ...	Dudua ...	Sál singal poles	15	298	
		„ poles	4	37	
	Khairagarh,	„ sleepers 6′×8″×4½″	*55,009	82,503	*This includes 2,035 sleepers written back by Comptroller-General's No. 608, dated 17th June, 1884.
		„ „ 6′×8″×4″	36,825	42,100	
	Newalkhar, Khairagarh,	„ slabs	5,111	5,111	
	Ditto ...	Dug-outs	15	...	
	Sarda river...	Drift timber	49	196	
		Total ...	97,021	1,37,245	
Bahraich ...	Bahraich ...	Sál poles	13	132	
		Tikoe logs	2	28	
		Sál sleepers	†7,211	10,528	† Plus 15,090 sleepers written back as above: 7,211 + 15,090 = 22,301 = 33,163 cubic feet.
		„ offcuts and ends of logs ...	15,918	20,598	
		Total ...	23,144	31,186	
Gonda ...	Gonda ...	Sál props, poles and saplings ...	118	1,426	
		Dhao axles	123	123	
		Khair props	1	1	
		Asna poles, &c.	9	36	
		Jun[illegible] „	30	51	
		Sissu „	1	1	
		Sál scantlings	2,978	2,978	
		Drift collections	107	595	
		„ grasses Mds.	16	...	
		Lime „	2	...	
		Charcoal „	2	...	
		Total ... No. ...	3,427	...	
		Total ... Mds. ...	20	5,211	

FORM No. 61.—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Sales of timber and other produce cut and collected by Government agency during the year 1884-85. —(concluded).

Division.	Depôt or locality.	Produce cut. Description.	Number or quantity.	Cubic feet.	Remarks.
Gorakhpur.	Gorakhpur.	Sál ballas	315	630	
		„ koros	255	255	
		„ sleepers	12,026	16,054	
		„ planks	3	1	
		Asna ballas	675	675	
		Jamun and Gular logs ...	33	264	
		Asna koros	345	345	
		Firewood Mds. ...	49,102	1,71,857	
		Total ... No. ...	13,652	1,90,081	
		Total ... Mds. ...	49,102		
		Grand Total of Part II ...	1,38,068	3,83,463	
			53,992		
		GRAND TOTAL OF PARTS I AND II, Mds. ...	2,94,900	5,12,436	
			53,992		
		Abstract of the Circle.			
		Part I—"Sold from Depôt."			
		Sál logs	101	3,818	
		Sissu „	42	896	
		Sál scantlings	1,00,013	64,764	
		„ sleepers	25,993	34,998	
		Asna scantlings	1,863	906	
		„ sleepers	227	328	
		Sissu scantlings	409	96	
		Dhamin „	3	1	
		Pieces of Sál logs	218	2,294	
		„ Asna logs ...	7	84	
		Sál offcuts	27,406	20,276	
		Asna „	194	129	
		Sissu „	170	75	
		Pieces of Sissu logs ...	1	18	
		Miscellaneous poles	140	210	
		Drift planks and pieces ...	45	80	
		Total ...	1,56,832	1,28,973	
		Part II.—"Sold locally."			
		Sál scantlings and planks ...	2,981	2,979	
		„ sleepers	1,11,064	1,58,185	
		„ ballas, poles, saplings, &c....	1,069	3,580	
		„ pieces of offcuts, ends, slabs,	21,489	26,204	
		Asna poles, koros, ballas, &c. ...	1,029	1,056	
		Jamun „ „ ...	63	315	
		Sissu „ „ ...	1	1	
		Khair „ „ ...	1	1	
		Dhao axles	123	123	
		Sál signal posts	15	298	
		„ dug-out canoes... ...	15	...	
		Tikoe logs	2	28	
		Firewood Mds. ...	53,792	1,88,272	
		Sál bark „ ...	180	630	
		Drift timber	216	791	
		„ grasses Mds. ...	16	...	
		„ lime „ ...	2	...	
		„ charcoal „ ...	2	...	
		Total of Part II. No. ...	1,38,068	3,83,463	
		Total of Part II. Mds. ...	53,992		
		GRAND TOTAL OF PARTS I AND II No. ...	2,94,900	5,12,436	
		GRAND TOTAL OF PARTS I AND II Mds. ...	53,992		

DATED NAINI TAL, The 12th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1884-85.

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
"SALE DEPOT."					
Balance at commencement of the year.					
Kheri (Trans-Sarda) Division. Bahramghát Depôt.	Sál logs	171	10,058		
	Sissu logs	474	10,198		
	Bahera logs	1	11		
	Dhao logs	1	14		
	Tikoe logs	1	10		
	Pander logs... ...	1	18		
	Sundri logs ...	3	69		
	Dhamin logs ...	3	67		
	Sál scantlings ...	2,20,492	68,482		
	" sleepers	7,747	70,985		
	Sissu scantlings ...	273	99		
	Deodar " ...	13	27		
	Sundri " ...	33	10		
	Dhamin " ...	30	9		
	Sál poles	107	1,646		
	Miscellaneous poles ...	8	9		
	Sissu stumps ...	34	290		
	Large boats ...	10	...		
	Canoes	8	...		
Lucknow Depôt ...	Sál scantlings ...	123	190		
Bahraich Division ...	Dharmapur Depôt canoes,	458	...		
		...	...	2,29,928	1,02,192
"Locally."					
Kheri Division ...	Sál logs	5,043	1,18,749		
	Asna logs	214	2,766		
	Sissu logs	3	64		
	Sál sleepers... ...	1,35,178	1,84,547		
	Asna sleepers ...	59,660	84,519		
	Sál scantlings ...	95	1,045		
	" planks	747	1,011		
	" signal posts ...	23	511		
	" offcuts (slabs) ...	2,24,590	2,62,058		
	Large boats... ...	72	...		
	Canoes	750	...		
		...	...	4,26,305	6,55,464
Bahraich Division ...	Sál sleepers...	10,395	14,789	10,395	14,789
Gorakhpur ditto ...	Sál beams (ballas) ...	239	478		
	" rafters (koros) ...	13	13		
	" poles (golas) ...	82	164		
	" pieces	3,695	14,780		
	" sleepers... ...	11,943	15,924		
	" scantlings ...	3,374	875		
	" offcuts	9,413	18,826		
	Boat	1	...		
		...	...	25,760	51,060
Pilibhit ditto ...	Firewood mds. ...	850	...	850	Maunds.
	Canoes	3	...	3	
	Total ...	...	...	6,95,454	8,23,505
		...	...	850	Maunds.
Add cubical contents of 850 maunds of firewood,		...	...	...	2,975
		...	...	6,95,454	8,26,480
		...	...	850	
Received from the Forests in Sale Depôt.					
Sál logs		3,183	1,66,418		
" logs (river)		1	73		
" scantlings		7,446	8,608		
" sleepers		1,40,447	1,23,215		
Asna sleepers		30,648	40,889		
Miscellaneous poles		838	1,257		
Drift sál planks		45	80		
		...	...	1,82,608	4,10,540

FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1884-85—(continued).

Particulars.		No. or quantity.	Cubic feet.	Total of each head: No. or quantity.	Total of each head: Cubic feet
Received from the Forests and sold "locally."					
Sál props, poles and saplings		118	1,426		
Dhao axles		123	123		
Khair props		1	1		
Asna poles		9	36		
Jamun "		30	51		
Sissu "		1	1		
Sál scantlings		2,978	2,978		
Confiscated and drift collections		167	595		
" grass ... ... mds. ...		16	56		
" lime ... ... " ...		2	7		
" charcoal ... ... " ...		2	7		
		...	...	3,497 20	5,281 Maunds.
Received from the Forests in Depôt other than Sale Depôt.					
Sál logs and pieces selection fellings, Kheri	5,035 = 2,01,160				
Sál logs and pieces crooked fellings, Kheri	6,416 = 2,11,653				
Sál logs and pieces crooked pieces	311 = 3,732	11,762	4,16,545		
	11,762 = 4,16,545				
Asna logs and pieces sleeper fellings, Kheri ...		1,561	88,736		
Tikoe logs fellings, Bahraich		2	28		
Sál poles — fellings: Kheri ...	4 = 37				
Sál poles — fellings: Bhira ...	845 = 7,605				
Sál poles — fellings: Bahraich	13 = 132	862	7,774		
	862 = 7,774				
Miscellaneous poles, Kheri		838	1,257		
Sál beams and rafters — Thinnings, Pilibhít,	132 = 210				
Sál beams and rafters — " Gorakhpur,	238 = 476				
Sál beams and rafters — " "	255 = 255	625	941		
	625 = 941				
Uprights and ridge poles, Pilibhít		93	473		
Sál pieces — Pilibhít ...	450 = 577				
Sál pieces — Bhira ...	25 = 45	475	622		
	475 = 622				
Asna beams, Gorakhpur...		675	675		
Jamun and Gular logs, Gorakhpur		33	264		
Asna rafters, "		345	345		
Charcoal, Bahraich ... ... mds. ...		50	175		
Firewood — Pilibhít, mds. ...	9,180 = 32,130				
Firewood — " " ...	3,990 = 13,965				
Firewood — Bhira " ...	1,750 = 5,250				
Firewood — Gorakhpur " ...	49,102 = 1,71,857	64,022	2,23,202		
	64,022 = 2,23,202				
Sál bark, Pilibhít ... ... mds. ...		180	630		
Drift timber, Kheri		49	196		
		...	...	17,320 64,252	7,41,863 Maunds.
Received by Conversion.					
Sál sleepers — Kheri ...	92,670 = 1,47,622				
Sál sleepers — Bahraich ...	1,877 = 2,503				
Sál sleepers — Gorakhpur ...	480 = 720	95,027	1,50,845		
	95,027 = 1,50,845				
Asna sleepers, Kheri		22,085	33,127		
Sál scantlings — Kheri ...	4 = 60				
Sál scantlings — Bahramghát ...	1,85,553 = 96,927	1,85,557	96,987		
	1,85,557 = 96,987				

FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt, or sold locally during the year 1884-85—(continued).

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Asna scantlings, Bahramghát	2,638	1,325		
Sissu " "	1,396	583		
Sál signal posts, Kheri	4	92		
Sál planks "	517	1,173		
Sál pieces of logs, Bahramghát ... 218 = 2,294	218	2,294		
Asna pieces of logs "	7	84		
Sissu " "	1	18		
Sál off-cuts and slabs. Bahramghát ... 27,406 = 20,276; Kheri ... 961 = 961; Bahraich ... 2,984 = 18,615; Ditto ... 32,635 = 32,635	63,986	72,487		
Asna do., Bahramghát	194	199		
Sissu do., Bahramghát	170	75		
			3,71,800	3,59,219
Received by transfer from Sale Depôt.				
Sál scantlings (Lucknow Depôt.) ...	4,671	5,742		
Dhamin scantlings ditto ...	3	1		
Sál off-cuts ditto ...	12,046	8,011		
Asna off-cuts ditto ...	50	33		
Miscellaneous poles ...	24	36		
			16,794	13,823
Received by transfer from Forest Division.				
Large boats from Bahramghát to Kheri ...	10	..	..	
Do. do. from transit do. ...	27	...	...	
Canoes do. from do. do. ...	2	...	...	
Do. do. from do. do. ...	4	...	43	
Add number of sleepers sold in 1883-84, but as the value could not be paid into the Treasury in time, these sleepers were written back and adjusted in 1884-85— Kheri ... 20,205 = 30,308; Bahramghát ... 10,200 = 15,600; Bahraich ... 15,090 = 22,635; 45,495 = 66,543	45,495	66,543	45,495	66,543
Total Receipts ... No. ...	...	...	6,87,487	15,97,259
Total Receipts ... Mds. ...	...	...	64,272	...
GRAND TOTAL ... No. ...	...	...	13,32,941	24,23,749
GRAND TOTAL ... Mds. ...	×	...	65,122	...
Removed by purchasers from Sale Depôt.				
Sál logs Bahramghát Depôt ...	101	3,818		
Sissu logs ditto ...	42	896		
Sál scantlings ditto ...	95,342	59,022		
Sál sleepers ditto ...	1,20,857	1,70,698		
Asna scantlings ditto ...	1,863	906		
Asna sleepers ditto ...	20,902	27,895		
Sissu scantlings ditto ...	409	96		
Sál pieces of logs ditto ...	218	2,294		
Asna ditto ditto ...	7	84		
Sál off-cuts ditto ...	15,360	12,265		
Asna off-cuts ditto ...	144	96		
Sissu off-cuts ditto ...	170	75		
Sissu pieces of logs ditto ...	1	18		
Miscellaneous poles ditto ...	116	174		
Drift sál planks and pieces ditto ...	45	80		
Sál scantlings (Lucknow Depôt) ...	4,671	5,742		
Dhamin ditto ...	3	1		
Sál off-cuts ditto ...	12,046	8,011		
Asna off-cuts ditto ...	50	33		
Miscellaneous poles ditto ...	24	36		
			2,72,371	2,92,240

FORM No. 62.—(Prescribed).

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt, or sold locally during the year 1884-85—(continued).

Particulars			No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Removed by purchasers from Forest Depôts other than Sale Depôt.						
Sál sleepers	Kheri					
	Bahraich ...	22,301 = 33,163	34,327	49,217		
	Gorakhpur ...	12,026 = 16,054				
		34,327 = 49,217				
Sál signal posts, Kheri ...	...	...	15	298		
„ uprights and poles, Pilibhít	...	...	192	525		
„ wood pieces, Pilibhít ...	450 =	577				
Ditto Bhira ...	10 =	18	460	595		
	460 =	595				
Sál poles ...	Kheri ...	4 = 37				
	Bhira ...	172 = 1,675	189	1,744		
	Bahraich ...	13 = 132				
„	189 =	1,744				
Sál beams, Gorakhpur ...	...	...	315	630		
„ rafters, „ ...	...	...	255	255		
Tikoe logs, Bahraich ...	...	...	2	28		
Asna beams, Gorakhpur ...	...	...	675	675		
„ rafters ...	...	...	345	345		
Jamun and Gular logs ...	...	...	53	264		
Sál off-cuts	Kheri ...	5,111 = 5,111	21,029	25,609		
	Bahraich ...	482 = 5,062				
	„ ...	15,436 = 15,436				
Canoes, Kheri ...	...	...	15	...		
Sál scantlings, Gorakhpur	...	...	3	1		
Firewood,	Gorakhpur, Mds.,	48,742 = 1,70,597	53,792	1,88,272		
	Ditto ...	360 = 1,260				
	Pilibhít ...	700 = 2,450				
	Ditto ...	3,990 = 13,965				
		53,792 = 1,88,272				
Sál bark, Pilibhít ...	...	Mds. ...	180	650		
Drift timber, Kheri ...	...	...	49	196	57,904	2,69,254
Sold from Forests locally.					55,972	Maunds.
Sál poles and saplings, Gonda	...	...	118	1,426		
Dhao axles	...	...	123	123		
Khair props	...	...	1	1		
Asna poles	...	...	9	36		
Jamun „	...	...	30	51		
Sissu „	...	...	1	1		
Sál scantlings ...	...	...	2,978	2,978		
Confiscated and drift collection	...	...	167	595		
Ditto grass	...	Mds. ...	16	56		
Ditto lime	...	„ ...	2	7		
Ditto charcoal	...	„ ...	2	7	3,427	5,281
Converted in Depôt.					20	Maunds.
Sal logs ...	Bahramghát,	1,417 = 78,947	3,223	2,97,792		
	Kheri ...	6,806 = 2,18,845				
		8,223 = 2,97,792				
Sissu logs, Bahramghát ...	...	...	68	1,638		
Sál scantlings ...	...	...	3,121	12,876		
„ sleepers	...	...	50	66		
Asna scantlings ...	...	...	245	355		
„ sleepers ...	...	...	82	109		
Sal poles	...	...	24	384		
Sissu stumps ...	...	...	1	9		
Sundri logs	...	...	1	30		
Dhamin logs ...	...	...	1	32		
Asna logs, Kheri ...	...	...	899	57,544		
Sál pieces, Gorakhpur ...	...	...	121	484	17,856	3,71,819

FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1884-85—(continued).

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Lost or written off as useless.				
Sál logs, Kheri	30	1,518		
Canoes, do.	47	...		
Large boats, do.	8	...		
Sál sleepers, Gorakhpur	297	440		
Firewood, Pilibhít, mds. burnt	3,930	13,755		
			382	15,713
Used by the Department.			3,930	Maunds.
Sál scantlings, Bahraighát	10,672	8,857		
" " "	920	448		
" logs Kheri	13	658		
" planks	601	507		
" off-cuts	522	523		
	...	...	12,728	10,993
Transferred to Sale Depôt.				
Sál scantlings, (Lucknow depôt)	4,671	5,742		
Dhamin " ditto	3	1		
Sál off-cuts	12,046	8,011		
Asna off-cuts...	50	32		
Miscellaneous poles	24	36		
Sál logs	3,183	1,66,418		
" scantlings, Kheri 140198	120	1,274		
" sleepers, Bahraich 249	1,40,447	1,93,215		
Asna sleepers	30,648	40,889		
Miscellaneous poles	838	1,257		
Sál scantlings and slabs	7,326	7,334		
In transit, canoes	3	...		
Large boats	11	...		
	...	...	1,99,370	4,24,210
Total ... No. ...	...	...	5,64,018	13,89,940
Total ... Mds. ...	...	...	57,922	Maunds.
Balance at close of the year—Sale Depôt.				
Sál logs	1,837	93,784		
Sissu logs	364	7,664		
Bahera logs	1	11		
Dhao logs	1	14		
Tikoe logs	1	10		
Pandar logs	1	18		
Sundri logs	2	39		
Dhamin logs	2	35		
Sál scantlings	2,93,765	87,072		
" sleepers	37,487	47,036		
Asna scantlings	530	64		
" sleepers	9,604	12,885		
Sissu scantlings	1,260	586		
Deodar	13	27		
Sundri	33	10		
Dhamin	27	8		
Sál poles	83	1,262		
Miscellaneous poles	706	1,056		
Sissu stumps	33	281		
Large boats	26	...		
Canoes	10	...		
Sál scantlings	123	190		
Bahraich ... Dharma, ur depôt canoes ...	458	...		
	...	...	3,46,427	2,52,052

FORM No. 62.—(PRESCRIBED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôt or sold locally during the year 1884-85—(concluded).

Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
At Forest Depôts other than sale.					
Khori ...	Sál logs	6,773	1,47,855		
	Asna "	876	33,958		
	Sissu "	3	64		
	Sál sleepers	1,07,855	1,69,788		
	Asna "	51,097	76,757		
	Sál scantlings	642	1,508		
	" signal posts	12	305		
	" slabs off-cuts	2,12,522	2,50,052		
	" boats	74	...		
	" canoes	688	...		
				3,80,542	6,80,287
Bahraich ...	Sál sleepers	4,482	5,992		
	In transit, sleepers	330	440		
	Sál off-cuts and pieces of logs ...	2,502	13,553		
	" off-cuts of sleepers ...	17,199	17,199		
	" charcoal ... Mds. ...	50	175		
				24,513 50	37,359 Maunds.
Gorakhpur,	" beams	162	324		
	" rafters	13	13		
	" poles	82	164		
	" pieces	3,574	14,296		
	" scantlings	3,271	574		
	" sleepers	100	150		
	" off-cuts	9,413	18,826		
	Boats	1	...		
				16,716	34,647
Pilibhit ...	Sál uprights and poles ...	33	157		
	" firewood ... Mds. ...	5,400	18,900		
				33 5,400	19,057 Maunds.
Bhira ...	Firewood ... Mds. ...	1,750	5,250		
	Sál poles ... No. ...	673	6,030		
	" pieces of wood	15	27		
				688 1,750	11,307 Maunds.
Canoes in transit		4	...	4	
Total ...	No.	...	...	7,68,023	10,34,709
	Mds.	...	...	7,200	...
GRAND TOTAL ...	No.	...	...	13,32,941	24,23,749
	Mds.	...	...	65,122	...

NAINI TAL;
Dated the 15th July, 1885.

C. J. PONSONBY,
Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 63—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers, or purchasers, including pasture, during the year 1884-85, under Budget head II.

Division.	Produce removed: Descriptions.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs. a. p.	Rs. a p.	
Pilibhit ...	Sál saplings ...	No. 16,309	326 0 0	326 0 0	
	„ uprights and ridge poles ...	„ 710	146 0 0	146 0 0	
	Miscellaneous wood	C. ft. 2,636	329 8 0	329 8 0	
	Royalty on cart material ...	No. 2,234	459 7 0	459 7 0	
	Carpenters and sawyers ...	„ 568	394 0 0	394 0 0	
	Wooden articles	...	19 6 3	19 6 3	
	Total, timber ...	No. 16,612 C. ft. 2,636	1,674 5 3	1,674 14 3	
	Firewood	Mds. 77,521	2,245 14 3	2,245 14 3	
	Charcoal	„ 19,044	1,206 3 0	1,206 3 0	
	Blacksmith and charcoal-makers,	280	976 0 0	976 0 0	
	Total, firewood and charcoal ...	96,845	4,428 1 3	4,428 1 3	
	Grazing cattle	No. 3,843	739 3 0	739 3 0	
	„ sold in the district ...	2,892	185 0 3	185 0 3	
	Total, grazing dues ...	6,735	924 3 3	924 3 3	
	Grasses	...	1,079 1 0	1,079 1 0	
	Sál bark	...	38 0 0	38 0 0	
	Shoe-makers, &c.	...	103 0 0	103 0 0	
	Hides and horns	...	79 6 3	79 6 3	
	Drugs	...	89 2 9	89 2 9	
	Lac (contract)	...	30 0 0	30 0 0	
	Total, minor produce ...	...	1,418 10 0	1,418 10 0	
	Total, revenue under II. ...	...	8,445 3 9	8,445 3 9	
Bhira Sub-Division.	Rafters and poles	13,154	2,696 4 6	2,696 4 6	
	Wheel naves	237	59 4 0	59 4 0	
	Spokes and fellies	1,938	121 6 0	121 6 0	
	Oil-press	6	4 6 0	4 6 0	
	Harrows...	64	29 8 0	29 8 0	
	Total, timber ...	15,396	2,910 12 6	2,910 12 6	
	Firewood	Mds. 1,09,366	546 15 9	546 15 9	
	Total, firewood ...	Mds. 1,09,366	546 15 9	546 15 9	3,62,781 c. ft.
	Grazing cows and bullocks ...	25,087	2,679 1 6	2,496 5 6	
	„ buffaloes	8,122	674 7 0	648 11 0	
	„ sheep	64	1 5 0	1 5 0	
	Total, grazing ...	28,273	3,354 13 6	3,146 5 6	Rs. 208-8-0 outstanding.
	Baib grass	...	1,608 4 6	1,608 4 6	
	Thatching grass	...	217 6 0	217 6 0	
	Seonk grass	...	2 13 6	2 13 6	
	Panga	...	14 8 0	14 8 0	
	Mahua	...	203 14 8	203 14 8	
	Pinder fruits	...	2 0 0	2 0 0	
	Bhingi	...	42 0 0	42 0 0	
	Honey and wax	...	30 0 0	30 0 0	
	Canes	...	0 8 0	0 8 0	
	Horns	...	1 2 0	1 2 0	
	Creepers...	...	1 7 0	1 7 0	
	Hides	...	416 8 0	416 8 0	
	Manure	...	7 0 0	7 0 0	
	Lime	...	1 8 0	1 8 0	
	Total, minor produce ...	...	2,548 15 8	2,548 15 8	
	Total, revenue under II. ...	...	9,361 9 5	9,153 1 5	Rs. 208 8-0 outstanding. Rs. 127-11-0 since collected.

FORM No. 63—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers, or purchasers including pasture, during the year 1884-85, *under Budget head II.*

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs. a. p.	Rs. a. p.	
Khori ...	Dry sál logs 399 ...	C. ft. 14,759	4,558 0 8	2,905 0 8	
	Green sál piece 1 ...	31	15 10 0	15 10 0	
	Half dead sál logs 3 ...	127	63 4 6	63 4 6	
	Dry sissu 2 ...	16	4 15 2	4 15 2	
	" asna 2 ...	177	33 4 6	33 4 6	
	Total, timber ...	C. ft. 15,100	4,675 2 10	3,022 2 10	
	Hollow dry sál	No. 1	5 0 0	5 0 0	
	Gular trees	20	200 0 0	200 0 0	
	Green sál	54	1,420 0 0	1,420 0 0	
	Dry sál poles	495	973 8 0	973 8 0	
	Green sál poles	1	6 0 0	6 0 0	
	Sidhwa poles	553	84 2 0	84 2 0	
	Unreserved ridge poles ...	20	5 0 0	5 0 0	
	" saplings 92 cart load and 47	No. 47	75 2 0	75 2 0	
	Miscellaneous	...	571 3 8	571 3 8	
	Part payment	...	1,824 3 0	1,824 3 0	
	Total ...	1,191	5,164 2 8	5,164 2 8	
	Total, timber ...	No. 1,191 C. ft. 15,100	9,839 5 6	8,186 5 6	
	Firewood	Mds. 10,485	180 4 0	180 4 0	
	Charcoal	" 1,650	220 0 0	220 0 0	
	Total, firewood and charcoal ...	Mds. 12,135	400 4 0	400 4 0	
	Grazing cattle	1,01,580	10,386 4 0	9,747 3 9	
	Total, grazing ...	1,01,580	10,386 4 0	9,747 3 9	
	Other minor produce ...	...	11,134 0 4	8,637 0 4	
	Total, minor produce ...	...	11,134 0 4	8,637 0 4	
	Total, revenue under II ...	No. 1,191 C. ft. 15,100 Mds. 12,135 Cattle 1,01,580	31,759 13 10	26,970 13 7	
Bahraich ...	Sál timber 613 ..	19,289	6,205 13 3	...	
	Asna 57 ...	1,976	267 2 11	...	
	Mahua 5 ...	115	7 2 9	...	
	Jamun 228 ...	6,740	445 13 2	...	
	Asidh 12 ...	302	31 15 0	...	
	Bahera 27 ...	847	52 15 3	...	
	Kussum 52 ...	996	160 8 7	...	
	Tikoe 14 ...	436	65 15 10	...	
	Sissu 1 ...	21	5 7 6	...	
	Green sál boats 83 ...	12,450	1,535 0 0	...	
	Dry " 45 ...	4,500	260 0 0	...	
	Sál poles 17,537 ...	38,725	6,502 14 7	...	
	Split koros 8,098 ...	16,200	1,027 10 3	...	
	" santas 5,497 ...	1,101	131 6 6	...	
	Asna poles 3,020 ...	12,784	819 0 8	...	
	Miscellaneous poles 476 ..	1,176	86 13 6	...	
	Manufactured articles ...	2,273	95 14 0	...	
	Part payments	...	1,529 14 3	...	
	Total, timber ...	C. ft. 1,19,931	19,321 8 0	...	
	Deduct 1st instalment ...	...	2,311 8 3	17,009 15 9	
	Firewood	Mds. 20,632	272 0 0	272 0 0	
	Charcoal	" 1,680	275 0 0	275 0 0	
	Total, firewood and charcoal ...	22,312	547 0 0	547 0 0	

FORM No. 63—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forests by consumers, or purchasers, including pasture, during the year 1884-85, *under Budget head II.*—(continued.)

Division.	Produce removed. Description.	Number or quantity.	Amount of revenue.	Amount actually realized during the year.	Remarks.
			Rs. a. p.	Rs. a. p.	
Bahraich...	Bamboos	No. 5	0 5 0	0 5 0	
	Grazing dues, cows	65,712	6,984 15 6	6,984 15 6	
	" buffaloes	14,367	3,433 12 0	3,433 12 0	
	" sheep	10,932	316 7 9	316 7 9	
	" ponies	76	4 12 0	4 12 0	
	" cows	7,244	1,438 6 5	1,438 6 5	Grazing dues paid by the Maharani of Batrampur.
	" buffaloes	1,040			
	Total, grazing dues ...	99,371	12,178 5 8	12,178 5 8	
	Grasses	...	132 0 0	132 0 0	
	Skins	...	1,521 0 0	1,521 0 0	
	Rohni and pipal	...	75 0 0	75 0 0	
	Mahua	...	2,237 0 0	2,237 0 0	
	Wax and honey	...	453 0 0	453 0 0	
	Narkul	...	60 0 0	60 0 0	
	Cowdung	...	1 0 0	1 0 0	
	Kankar	...	1 0 0	1 0 0	
	Khas	...	50 0 0	50 0 0	
	Canes	...	17 8 0	17 8 0	
	Khair pots	...	10,554 6 0	10,554 6 0	
	Agni leaves	...	4 2 6	4 2 6	
	Part payment	...	321 0 0	321 0 0	
	Total, minor produce ...	...	15,427 0 6	15,427 0 6	
	Total, revenue under head II ...	...	45,162 10 11	45,162 10 11	
Gonda ...	Sál logs	683	261 14 5	...	
	Sissu "	106	5 14 6	...	
	Asna "	2,257	526 7 5	...	
	Tikoe	1,944	466 3 5	...	
	Sál props, poles, &c. ...	5,890	314 10 0	...	
	Dhao "	181	13 11 11	...	
	Khair "	4,590	204 0 0	...	
	Jamun "	230	33 10 10	...	
	Unreserved "	1,20,185	2,077 4 0	...	
	Total ...	C. ft. 1,35,970	3,901 12 6	...	
	Sál timber	No. 390	260 0 0	...	
	Asna "	109	118 0 0	...	
	Dhao "	26	22 0 0	...	
	Jamun "	29	24 0 0	...	
	Sissu "	6	20 0 0	...	
	Khair "	1	1 0 0	...	
	Unreserved "	16	12 0 0	...	
	Carts	17	255 0 0	...	
	Tikoe	102	102 0 0	...	
	Total ...	No. 696	814 0 0	...	
	Total, timber ...	No. 696 C. ft. 1,35,970	4,715 12 6	4,715 12 6	
	Mds. Firewood ... 41,245 Charcoal ... 1,717	C. ft. 2,58,718 " 24,045	494 5 5 687 0 0	...	
	Total ... 42,962				
	Total, firewood and charcoal ...	C. ft. 2,82,763	1,181 5 5	1,181 5 5	
	Grazing cattle cows ...	4,095	333 14 9	...	
	" " buffaloes ...	533	136 10 0	...	
	" " sheep ...	966	15 1 6	...	
	" " Bulampur estate	...	4,832 6 5	...	
	Total, grazing ...	5,594	5,318 0 8	5,318 0 8	

FORM No. 63—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Timber and other produce cut, collected, and removed from the forest by consumers or purchasers, including pasture, during the year 1884-85, *under Budget head II.*—(concluded.)

Division.	Produce removed. Descriptions.	Number or quantity.	Amount of revenue.	Amount actually received during the year.	Remarks.
			Rs. a. p.	Rs. a. p.	
Gonda—(*concluded.*)	Grasses	...	1,098 11 9	...	
	Reeds (saintha)	...	54 7 3	...	
	" sirki	...	5 0 0	...	
	Khairhas huts	...	2 0 0	...	
	Asna bark	...	0 10 0	...	
	Lime	...	157 15 0	...	
	Skins	...	188 0 0	...	
	Catchu (4,874 pots) ...	...	3,655 8 0	...	
	Contract for Robin fruit ...	...	42 0 0	...	
	" Mahua flowers ...	...	1,354 12 9	...	
	" Washing gold ...	...	19 0 0	...	
	Total, minor produce ...	...	6,578 0 9	6,578 0 9	
	Total, revenue under head II ...	...	17,793 3 4	17,793 3 4	
Gorakhpur.	Sál	12,908	6,443 7 0	...	
	Asna	24,621	5,917 13 6	...	
	Jamun	799	415 8 0	...	
	Mahua and Kusum	343	179 2 0	...	
	Samal trees	154	467 0 0	...	
	"Karma" trees	6	72 0 0	...	
	Asidh	9	4 0 0	...	
	Mahua	68	352 8 0	...	
	"Bijaisal"	1	0 4 0	...	
	Miscellaneous	5,163	412 4 0	...	
	Total, timber ...	44,072	14,323 14 6	15,148 9 2	Including advance of Rs. 1,555.
	Firewood cart load ...	8,004	5,653 14 6	...	
	" ...	Mds. 4,419	1,747 11 0	...	
	" ...	" 2,100	336 0 0	...	
	" by contract ...	...	2,550 10 9	...	
	Charcoal	17	60 8 0	...	
	Total, firewood and charcoal ...	...	10,348 12 3	10,390 13 3	
	Grazing dues, buffaloes ...	6,374	2,514 1 3	...	
	" " cows ...	37,242	3,729 5 6	...	
	Total, grazing ...	43,616	6,243 6 9	6,118 3 2	
	Long grass	...	6,322 4 5	...	
	Hides by contract	...	828 0 0	...	
	Wild fruit	...	87 2 0	...	
	Tún by contract	...	3 0 0	...	
	Total, minor produce ...	...	7,240 6 5	81,061 10 8	
	Total, revenue under head II ...	...	38,156 7 11	39,718 11 3	
	GRAND TOTAL ...	...	1,50,679 1 2	1,47,343 12 3	

NAINI TAL:
Dated the 15th July, 1884.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 63A.

Forest Department, North-Western Provinces and Oudh, Oudh Circle.

Statement showing the amount realized and due on account of different classes of timber and other produce sold during the year 1884-85, under Budget head 1., Government Agency.

Division		Produce removed. Description.	Number or quantity sold.	Cubic feet.	Amount realized and due on account of sales of 1884-85. Rs.	a.	p.	Remarks.
Kheri Thana Sarda Division.	Bahramghat Depôt.	Sál logs ...	101	3,818	2,197	0	0	
		„ scantlings ...	95,342	59,022	88,459	14	3	
		Sissu sleepers ...	15,793	21,398	36,557	4	0	
		Sissú logs ...	42	896	556	13	0	
		Pieces of sál logs ...	218	2,294	616	0	0	
		„ of Asna ...	7	84	13	0	0	
		Sál offcuts ...	15,360	12,265	4,293	1	9	
		Asna scantlings ...	1,863	906	587	10	6	
		Sissu scantlings ...	409	96	282	0	1	
		Asna offcuts ...	144	96	18	8	0	
		„ sleepers ...	227	328	91	0	0	
		Sissu offcuts ...	170	75	33	0	0	
		Pieces of sissu logs ...	1	18	5	0	0	
		Miscellaneous poles ...	116	174	43	12	0	
	Lucknow Depôt.	Sál scantlings, (Lucknow depôt.)	4,671	5,742	2,304	9	3	
		Sál offcuts ...	12,046	8,011	2,548	12	7	
		Asna offcuts ...	50	33	6	4	0	
		Miscellaneous poles ...	24	36	16	8	0	
		Dhamin scantlings ...	3	1	1	7	6	
		Total ...	1,46,587	1,15,293	1,38,631	8	11	
	Shitaba Depôt.	Old and broken boats ...	14	...	378	0	0	
	Khairigarh Depôt.	Ditto ditto ...	1	...	25	0	0	
	Dadna ...	Sál sleepers ...	91,827	1,31,603	2,16,048	2	0	
		Actual cost of carriage,	...	...	60	2	0	
		Sál poles ...	4	37	34	0	0	
		„ signal posts ...	15	298	856	12	2	
		„ offcuts, 67 cart load...	5,111	5,111	224	7	0	
		Total ...	96,972	1,37,049	2,17,626	7	2	Total shown as revenue.
Pilibhit ...		Up rights and ridge poles, &c.	60	315	18	0	0	
		Rafters ...	132	210	9	0	0	
		Pieces of sál wood ...	450	577	35	0	0	
		Stacked fuel maunds ...	700	2,459	84	0	0	
		Firewood ...	3,990	13,965	144	7	0	
		Sál bark ...	380	630	18	0	0	
		Total, { Number ... / Maunds ... }	642 / 4,870	18,147	308	7	0	Ditto ditto.
Bhira ...		Poles ...	172	1,575	44	2	0	
		Pieces of wood ...	10	18	2	0	0	
		Total ...	182	1,593	46	2	0	Ditto ditto.
Bharaich ...		Metre-gauge sleepers {	+ 15,090 / 7,211	22,635 / 10,528	51,842	11	6	7,211 + 15,090 = 22,301.
		Offcuts of sleepers ...	15,436	15,436	2,120	0	0	Sleepers = 33,163 cubic feet = Rs. 51,842-11-6.
		Odds and ends ...	482	5,062	1,436	0	0	15,090 sleepers were of 1883-84, written back by Comptroller-General, and shown as sold this year 1884-85.
		Sál poles ...	13	132	93	0	0	
		Tikoo logs ...	2	28	6	0	0	
		Total ...	23,144	31,186	55,497	11	6	
Gonda ...		Sál beams ...	8	145	57	13	2	
		„ props, posts, poles saplings, &c., and stumps.	110	1,281	1,874	0	0	and cart load 10.
		Dhao axles ...	123	123	61	14	0	
		Asna poles, &c. ...	9	18	18	0	0	
		Jamun „ ...	30	51	3	2	11	
		Sál scantlings ...	2,978	2,978	7,403	8	2	
		Sissu pole ...	1	1	0	4	0	
		Khair ...	1	1	0	3	0	
		Total ...	3,260	4,598	9,418	13	3	and carts 10. Total shown as revenue.

	Rs.	a.	p.
Total revenue under head I. during 1884-85.	1,38,631	8	11
Deduct amount due for 1884-85, but not realized.	2,715	1	9
Actual revenue of 1884-85, realized.	1,35,916	7	2
Add amount realized during 1884-85 on account of former years.	14,803	13	1
Total collected during 1884-85.	1,50,720	4	3

FORM No. 63A.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing the amount realized and due on account of different classes of timber and other produce sold during the year 1884-85, *under Budget head I., Government Agency*—(concluded).

Division.	Produce removed. Descriptions.	Number or quantity sold.	Cubic feet.	Amount realized and due on account of sales of 1884-85. Rs. a. p.	Remarks.
Gorakhpur ...	Sál beams ...	315	630	2,684 15 0	Rs. a. p.
	„ rafters ...	255	255	63 11 2	Total revenue 39,028 14 0
	„ sleepers ...	12,026	16,054	25,958 12 0	
	Asna beams ...	675	675	201 4 2	Deduct amount due, but not realized during the year. 1 0 0
	„ rafters ...	345	345	55 3 3	
	Jamun and gular ...	33	264	394 0 0	
	Sál planks ...	3	1	1 0 0	
	Firewood, chips, Mds.	49,102	171,857	9,690 0 5	Total shown as revenue under head I. 39,027 14 0
	Total ... { Number ...	13,652	190,081	39,028 14 0	
	Total ... { Maunds ...	49,102			
	GRAND TOTAL. { Number ...	284,439	497,947	4,60,557 15 10	
	GRAND TOTAL. { Maunds ...	53,972			
	Abstract of the Circle.				
	Sál logs ...	101	3,818	2,197 0 0	
	Sissu „ ...	42	896	556 13 0	
	Tikoo „ ...	2	28	6 0 0	
	Sál pieces ...	218	2,204	616 0 0	
	Asna „ ...	7	84	13 0 0	
	Sissu „ ...	1	18	5 0 0	
	Sál sleepers ...	1,26,857	179,583	3,30,406 13 6	
	Asna „ ...	227	328	91 0 0	
	Sál planks ...	3	1	1 0 0	
	„ scantlings ...	1,02,991	67,742	98,167 15 8	
	Sissu „ ...	409	96	282 0 1	
	Asna „ ...	1,863	906	587 10 6	
	Dhamin ...	3	1	1 7 6	
	Sál offcuts, slabs, &c. ...	48,895	46,480	10,659 5 4	
	Asna „ „ ...	194	129	24 12 0	
	Sissu „ „ ...	170	75	33 0 0	
	Sál signal posts ...	15	298	856 12 2	
	„ beams, poles, rafters, &c.	1,069	4,580	4,858 9 4	
	Asna poles ...	1,029	1,038	274 7 5	
	Sissu „ ...	1	1	0 4 0	
	Khair prop ...	1	1	0 3 0	
	Jamun ...	63	315	397 2 11	
	Miscellaneous poles ...	140	210	60 4 0	
	Dhao axles ...	123	123	61 14 0	
	Boats, old and broken ...	15	...	403 0 0	
	Actual cost of carriage of sleepers.	...	...	60 2 0	
	Sál bark, Mds.	180	630	18 0 0	
	Firewood „	53,792	1,88,272	9,918 7 5	
	Total ... { Number ...	284,439	4,97,947	4,60,557 15 10	
	Total ... { Maunds ...	53,972			

Deduct amount due, but not realized during the year ...	2,715 13 9
Balance	4,57,842 2 1
Add amounts realized on account of former years ...	14,812 6 1
Total shown as revenue	4,72,654 8 2

NAINI TAL:
Dated the 15th July, 1884.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 63B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing the amount realized on account of different classes of timber and other produce sold during the year 1884-85 under Budget head III

Division.	Description.	Number or quantity sold.	Cubic feet.	Amount realized and due on account of sales.	Remarks.
				Rs. a. p.	
Pilibhít ...	Drift sissu piece	1	...	3 0 0	
	„ sál „ „ ...	1	...	5 0 0	
	„ timber contract ...	...	...	450 0 0	
	Total ...	2	...	458 0 0	Total shown as revenue under III.
Bahrámghát. (Fyzabad.)	Drift planks and pieces ...	45	80	39 14 0	
	Total ...	45	80	39 14 0	Ditto do. do.
Kheri ...	Drift timber by auction and contract.	49	196	1,001 14 3	
	Total ...	49	196	1,001 14 3	
Bahraich	Drift timber contract, 1884-85 of river Gogra.	...	...	1,400 0 0	Total revenue 1,600 0 0
	Ditto Rapti do. ...	...	...	200 0 0	Deduct amount due, but not realized during the year. 900 0 0
					700 0 0
					Add amount realized on account of previous year. 700 0 0
					Total shown as revenue ... 1,400 0 0
	Total ...	...	...	1,600 0 0	
Gorakhpur	Drift timber contract ...	...	...	174 4 0	Total revenue 174 4 0
					Add outstandings from previous years. 62 8 0
					236 12 0
					Deduct amount due, but not realized during the year. 168 12 0
					Balance shown as revenue ... 68 0 0
	Total ...	...	...	174 4 0	
Gonda ...	Drift timber	167	595	166 11 4	
	„ charcoal lime & grasses,	Mds. 20			
	Total ...	No. 167 Mds. 20	595	166 11 4	Total shown as revenue.
	GRAND TOTAL ...	No. 263 Mds. 20	871	3,440 11 7	
	Deduct amount due, but not realized, Rs. 900+168-12-0.	...	...	1,068 12 0	
				2,371 15 7	
	Add amount on account of previous years realized in 1884-85, Rs. 700+62-8-0	...	...	762 8 0	
				3,134 7 7	

NAINI TAL:
Dated the 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 64.—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Revenue derived from, and expenditure incurred on, timber and other produce sold to Public Departments, during the year 1884-85.

Name of Department.	Particulars of supplies.	Amount supplied.	Rate. At	Rate. Per	Amount of revenue. Due.	Amount of revenue. Received.	Amount of revenue. Outstandings.	Cost to Forest Department. Timber expenses under A.1.	Cost to Forest Department. Quota of all other expense chargeable against timber.	Cost to Forest Department. Total.	Comparison of revenue and expenditure. Surplus.	Comparison of revenue and expenditure. Deficit.	Remarks
Bahraighat Division.		C. ft.	Rs. a. p.	C. ft.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
Public Works Department ...	Sál scantlings ...	2,302	2 5 6	...	5,382	4,659	723						
Ditto ditto ...	Asna " ...	224	1 8 0	...	336	336	...						
Jail ditto ...	Sál " ...	5,757	3 0 4	...	17,404	16,992	412						
Ditto ditto ...	Sissu " ...	3	2 0 0	...	6	6	...						
Irrigation ditto ...	Sál " ...	2,931	2 0 10	...	6,024	6,024	...						
Ditto ditto ...	Sissu logs ...	159	1 8 0	...	238	238	...	27,219	3,945	31,164	9,664	...	
Agricultural ditto ...	Sál scantlings ...	126	1 9 9	...	203	203	...						
Ordnance ditto ...	" ditto ...	880	2 3 0	...	1,924	1,924	...						
State Railways ditto ...	" sleepers ...	5,292	1 11 9	...	9,201	9,201	...						
Military ditto ...	" ...	22	1 5 1	...	29	29	...						
Postal ditto ...	" ...	19	2 4 2	...	43	43	...						
Forest ditto ...	Sissu " ...	13	3 0 0	...	38	38	...						
	Total C. ft. ...	17,728	...	...	40,828	39,693	1,135	27,219	3,945	31,164	9,664	...	
Kheri Division.													
Bengal N.-W. Railway ...	Sál sleepers ...	89,427	2 6 0	Each ...	2,12,626	2,12,626	...						
	Ditto ...	2,268	1 8 0	" ...	3,402	3,402	...						
	15 Sál signal posts ...	298	2 8 0	C. ft. ...	857	857	...	7,437	5,654	79,991	1,36,988	...	
Executive Engineer, Cawnpur-Kalpi Railway.	Sál poles ...	2	10 0 0	Each ...	20	94	...						
	" ditto ...	2	7 0 0	" ...	14								
	...	Actual cost of carriage		...	60								
	Total No. ...	92,097	...	...	2,16,979	2,16,979	...	7,437	5,654	79,991	1,36,988	...	
Bahraich Division.													
Bareilly-Pilibhit State Railway.	Sleepers 6′×8″×4′ ...	1,733	1 12 0	Each ...	3,033	3,033	...	1,300	100	1,400	1,633	...	
	Total ...	No. 1,733	...	...	3,033	3,033	...	1,300	100	1,400	1,633	...	
Gonda Division.													
Police Department ...	Sál scantlings ...	C. ft. 165	2 4 0	C. ft.	372	372	...						
Bengal N.-W. Railway ...	" ditto ...	2,812	2 8 0	...	7,031	7,031	...	4,102	...	4,102	5,102	...	
Ditto ditto ...	" poles ...	No. 5,590	0 4 0	Each ...	1,388	1,388	...						
Ditto ditto ...	Firewood ...	Mds. 8,465	3 4 3	100 mds.	330	330	...						
	Total ... No. / C. ft. / Mds.	5,590 / 2,978 / 8,465	...	...	9,121	9,121	...	4,102	...	4,102	5,102	...	
Gorakhpur Division.													
Bengal N.-W. Railway ...	Sál sleepers ...	No. 12,026	2 2 6	Each ...	25,959	25,959	...						
	" ballas ...	178	15 0 0	...	2,595	2,595	...						
	" ditto ...	6	1 0 0	...	6	6	...						
	" ditto ...	44	0 13 0	...	36	36	...	11,087	3,695	14,782	23,849	...	
	" Bondas poles ...	35	0 8 0	...	17	17	...						
	Jamun and Gular ...	32	12 0 0	...	384	384	...						
	Firewood ...	Mds. 6,492	20 0 0	100 mds.	9,298	9,298	...						
	Ditto ...	2,100	16 0 0	...	336	336	...						
	Total ... No. / Mds.	12,316 / 8,592	...	...	38,631	38,631	...	11,087	3,695	14,782	23,849	...	
	GRAND TOTAL No. / C. ft. / Mds.	1,11,736 / 20,706 / 17,057	...	...	3,08,592	3,07,457	1,135	51,145	13,394	1,31,439	1,77,256	...	

NAINI TAL:
Dated the 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 65—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts, for the year 1884-85.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
Sál logs ...	171	10,058	7,587	1,837	93,784	70,338	62,751	...	
Asna „ ...	...	...	...	...	...	...	...	...	
Sissu „ ...	474	10,198	5,099	364	7,664	3,832	...	1,267	
Bahera „ ...	1	11	5	1	11	5	...	...	
Dhao „ ...	1	14	7	1	14	7	...	...	
Tikoe „ ...	1	10	5	1	10	5	...	...	
Pander „ ...	1	18	9	1	18	9	...	...	
Sundri „ ...	3	69	35	2	38	20	...	15	
Dhamin „ ...	3	67	34	2	35	17	...	17	
Sál scantlings ...	2,20,492	68,482	51,361	2,93,765	87,072	65,304	13,943	...	
„ sleepers ...	7,747	10,985	10,985	37,487	47,036	47,036	36,051	...	
„ scantlings (Lucknow Depôt.)	123	190	131	123	190	131	...	...	
Asna scantlings ...	...	...	...	530	64	32	32	...	
„ sleepers ...	...	...	...	9,664	12,885	9,664	9,664	...	
Deodar scantlings ...	13	27	20	13	27	20	...	...	
Sissu „ ...	273	99	74	1,260	586	440	366	...	
„ stumps ...	34	290	34	33	281	33	...	1	
Sundri scantlings ...	33	10	8	33	10	7	...	1	
Dhamin „ ...	30	9	7	27	8	6	...	1	
Miscellaneous poles	8	9	2	706	1,056	176	174	...	
Sal poles	107	1,646	823	83	1,262	631	...	192	
Large boats ...	10	...	5,000	26	...	13,000	8,000	...	
Canoes (Dharmapur, Bahraich.)	458	...	9,160	458	...	7,557	...	1,603	
Canoes	8	...	160	10	...	200	40	...	
Total ...	2,29,991	1,02,192	90,546	3,46,427	2,52,052	2,18,470	1,31,021	3,097	=1,27,924. In favor of the year.

NAINI TAL :
The 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 65A.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of timber and other produce at Depôts other than Sale Depôts, during the year 1884-85.

Description of timber.	On hand at commencement of the year.			Balance at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
Sál logs ...	5,043	1,18,749	59,375	6,773	1,47,855	73,928	14,553	...	
Asna „ ...	214	2,766	346	876	33,958	8,490	8,144	...	
Sissu „ ...	3	64	16	3	64	16	...	...	
Sál sleepers ...	1,57,516	2,15,454	2,15,456	1,12,767	1,76,370	1,76,370	...	39,086	
„ scantlings ...	3,469	1,920	1,920	4,013	2,382	2,382	462	...	
„ karies ...	...	...	...	...	...	...	...	...	
„ offcuts ...	9,413	18,826	2,353	2,41,636	2,99,630	37,454	35,101	...	
„ poles ...	...	...	...	706	6,187	176	176	...	
„ pieces of logs...	3,695	14,780	11,085	...	...	...	...	11,085	
„ „ or slabs ..	2,24,520	2,62,958	16,379	...	...	...	...	16,379	
„ ballas (beams),	239	478	48	162	324	65	17	...	
„ koras (rafters),	13	13	3	13	13	3	...	...	
„ golas (poles) ...	82	164	17	82	164	17	...	...	
Asna sleepers ...	59,660	84,519	42,259	51,097	76,757	38,379	...	3,880	
Sál planks ...	747	1,011	1,011	...	...	...	...	1,011	
„ signal posts ...	23	511	511	12	305	305	...	206	
Firewood ...	Mds.850	...	102	7,150	24,150	894	792	...	
Large boats ...	72	...	26,400	74	...	25,920	...	480	
Canoes ...	762	...	[illegible],050	693	...	17,325	...	1,725	
Total { Numbers ...	4,66,471	7,21,313	3,[illegible]6,331	4,26,057	7,68,159	3,81,724	59,245	73,852	=14,607 against the year.
Total { Maunds ...	850	...	...	...	...	...	...	...	

	Rs.	
By form No. 65 at sale depôt in favor of the year ...	1,27,924	
Ditto No. 65A other depôts ...	14,607	Against the year
Total at all depôts in favor of the year ...	1,13,317	

NAINI TAL :
The 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FORM No. 65B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of live and dead stock, for the year 1884-85.

Description of live and dead stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
		Rs.		Rs.			
DIRECTION DIVISION.							
Dead stock							
3 Tools	1	1	1	1			
4 Office furniture	56	151	62	171			
5 Tents and equipages	5	280	5	260			
7 Miscellaneous	4	4	4	4			
Total ...	66	436	72	436			
PILIBHIT DIVISION.							
Live stock.							
Elephant	1	1,800	1	1,800			
Bullocks	4	160	4	160			
Dead stock.							
1 Surveying and other instruments ...	22	16	21	16			
2 Machinery	2	31	2	31			
3 Tools	179	107	181	108			
4 Office furniture	11	62	11	62			
5 Tents and equipages	2	70	3	70			
7 Miscellaneous	374	744	380	775			
Country carts	2	80	2	80			
Buildings	8	7,875	8	7,875			
Total ...	605	10,945	613	10,977	32		
BHIRA SUB-DIVISION.							
Live stock.							
Bullocks	2	80	2	80			
Buffaloes	...	...	1	15			
Dead stock.							
1 Surveying and other instruments ...	41	89	36	90			
3 Tools	94	78	132	91			
4 Office furniture	48	94	48	93			
5 Tents and equipages	5	190	4	190			
6 Building materials, small stores and house fittings.	169	412	209	494			
7 Miscellaneous	50	163	59	166			
Country carts	2	80	2	80			
Buildings	8	11,044	8	11,044			
Total ...	439	12,230	501	12,343	113		
KHERI DIVISION.							
Live stock.							
Elephants	4	8,500	4	8,500			
Bullocks	5	125	4	110			
Buffaloes	5	40	4	32			
Dead stock.							
1 Surveying and other instruments ...	9	748	10	750			
3 Tools	2,163	1,653	2,753	2,023			
4 Office furniture	323	972	325	973			
5 Tents and equipages	9	803	9	803			
6 Building materials, small stores and house fittings.	4,242	1,589	7,228	1,701			
7 Miscellaneous	1,019	1,230	1,086	1,102			
Country carts	9	158	10	193			
Buildings	10	31,535	10	31,535			
Total ...	7,798	47,358	11,443	47,722	369		
BAHRÁMGHÁT DEPÔT.							
Live stock.							
Buffaloes	9	90	12	127			
Dead stock.							
1 Surveying and other instruments ...	49	121	49	121			
2 Machinery	26	38,200	38	38,700			
3 Tools	899	1,832	814	1,899			
4 Office furniture	82	400	82	400			
6 Building materials, small stores and house fittings.	6	16	6	16			
7 Miscellaneous	...	125	...	236			
Timber transport carts	2	250	2	250			
Country carts	10	125	10	125			
Buildings	2	10,000	2	10,000			
Total ...	1,085	51,159	1,015	51,874	715		

FORM No. 65B.—(SUGGESTED.)

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Abstract showing the value of live and dead stock for the year 1884-85—(concluded.)

Description of live and dead stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		REMARKS.
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
BAHRAICH DIVISION.							
Live stock.							
Elephant	1	2,600	1	2,600			
Buffaloes	...	...	...	...			
Dead stock.							
1 Surveying and other instruments ...	45	216	44	216			
3 Tools	1,002	339	1,034	359			
4 Office furniture	168	507	173	526			
5 Tents and equipages	33	355	26	355			
6 Building material, small stores and house fittings.	207	169	208	170			
7 Miscellaneous	555	72	555	72			
Buildings	15	22,924	15	22,924			
Total ...	2,026	27,182	2,051	27,222	40	...	
GONDA DIVISION.							
Live stock.							
Elephant	1	1,000	1	1,000			
Buffaloes	2	14	2	14			
Dead stock.							
1 Surveying and other instruments ...	1	20	3	33			
3 Tools	306	240	306	240			
4 Office furniture	43	250	43	250			
5 Tents and equipages	3	175	4	331			
6 Building materials, small stores and house fittings.	10	4	10	4			
7 Miscellaneous	2	2	2	2			
Buildings	2	4,000	2	4,000			
Total ...	370	5,705	373	5,874	169	...	
GORAKHPUR DIVISION.							
Live stock.							
Elephant	1	1,100	1	1,100			
Dead stock.							
1 Surveying and other instruments ...	11	93	11	93			
2 Machinery	1	150	1	150			
3 Tools	177	189	177	189			
4 Office furniture	20,309	775	20,421	1,011			
5 Tents and equipages	5	460	5	200			
7 Miscellaneous	129	209	129	209			
Buildings	8	7,800	9	9,000			
Ditto error in previous statement ...	...	2,000	...	...			
Total ...	20,641	12,716	20,754	11,952	...	764	
GRAND TOTAL ...	36,030	1,67,726	36,822	1,68,400	674	...	
ABSTRACT OF THE CIRCLE.							
Live stock.							
Elephants	8	15,000	8	15,000			
Bullocks	11	365	10	350			
Buffaloes	16	144	19	188			
Total ...	35	15,509	37	15,538	...	...	
Dead stock.							
1 Surveying and other instruments ...	178	1,303	174	1,319			
2 Machinery	29	38,881	41	38,881			
3 Tools	4,821	4,439	5,398	4,910			
4 Office furniture	21,040	3,211	21,165	3,486			
5 Tents and equipages	62	2,273	56	2,209			
6 Building materials, small stores and house fittings.	4,654	2,190	7,656	2,385			
7 Miscellaneous	2,133	2,549	2,215	2,566			
Country carts	25	693	26	728			
Buildings	53	97,178	54	96,378			
Total ...	32,995	1,52,217	36,785	1,52,862	...	...	
GRAND TOTAL ...	33,030	1,67,726	36,822	1,68,400	674	...	

NAINI TAL:
Dated the 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX A.

FOREST DEPARTMENT, N.-W. P. AND OUDH, OUDH CIRCLE.

Annual Plan of Operations.

Budget heads.	Sanctioned plans.	Rupees.	How far carried out.
	PILIBHIT DIVISION.		
A.I. *b.*	Thinnings at Kali Lur ...	2,000	Completed.
A.VII. *a.*	Mustafabad-Nachni boundary lines 9 miles.	540	Nine miles at Rs. 59-9-0=Rs. 536-3-9. Work completed.
"	Dhamaila to Bankatti 8′ fire path.	160	Given in contract, to be ready by the end of May, 1885.
"	Repairs of roads	520	Rs. 892-13-6 were spent on the annual repairs of roads. The excess is due to the thorough repairs of 21 miles of roads at Rs. 12=Rs. 252, and heavy grass cleared on the lines in the closed area on account of good rainy season during the year.
A.VII. *b.*	Out-office at Mustafabad ...	50	Done
"	Reroofing and tiling of Mahofe and Mustafabad out-houses at Rs. 100 each	200	Rs. 200 were proposed for rethatching only. Plank roofing and tiling were substituted at a cost of Rs. 340 for the Mahofe out-houses only. The work on the Mustafabad out-houses could not be taken in hand for want of funds. Some material was collected.
"	Rethatching of Chorghatta and Mahofe rest-houses.	...	This work was not considered necessary when the working plan was framed, but when inspected in December, 1884, it was considered necessary to rethatch before the rains. Rs. 211-12-0 spent on these works.
A VII. *b.*	Plank roofing, &c., of Mahofe rest-houses.	...	Rs. 112-10-8 were spent on this work. It was not proposed in the working plan, but was considered necessary, as the roof was found to be rotten when the upper thatch was being replaced.
"	Annual repairs of rest houses and out-offices.	100	Rs. 138-6-9 were spent on the annual repairs of nine houses. The excess of Rs. 38-6-9 is on account of some doors, &c., added to out-offices.
A VII. *c.*	Clearing out wells and putting in charcoal.	48	The sum of Rs. 34-13-11 was spent on the annual clearing of 16 wells.
A.VIII. *a.*	Demarcation 14 miles ...	400	Out of the 14 miles of ditching proposed, only 9 miles at Rs. 25 were completed=Rs. 225. The sum of Rs 35-2-2 was expended on compound ditching=Rs. 260-2-2. Towards the close of the financial year funds ran short and all works had to be suspended.
A.VIII. *c.*	Fire paths 11 miles at Rs. 40 per mile.	440	Eleven miles of 8′ fire paths were proposed in the working plan, but owing to the disastrous fire of April, 1884, it was found necessary to make 21 miles 1 furlong at Rs. 38=Rs 802-1-9 to perfect the fire conservancy arrangements.
A.VIII. *e.*	24 feet broad grass cutting, clearing fire lines and paths 57 miles 3 furlongs.	524	Thirty-eight miles 6 furlongs of grass cutting, 24 feet broad, at Rs 11 per mile done. Thirty-five miles 5 furlongs fire lines and paths at Rs. 9-8-0 per mile cleared and repaired. Fourteen miles dagbailed at Rs. 5-1-0 per mile for burning purposes. Total Rs. 842-13-0.
	BHIRA SUB-DIVISION.		
A I. *a.*	Compartment thinning ...		Not proposed in the working plan. The sum of Rs. 130-9-6 was spent.
A VII. *a.*	Road repairs—new roads ...	1,000	Sixty-three miles 5 furlongs of roadway repaired at a cost of Rs. 820-1-9 or about Rs. 13 per mile. Heavy repairs were undertaken this year.
			Rs. a. p. New roads, 13 mile, at Rs. 50 per mile ... 650 0 9 Repairs ... ... 820 1 9 Total ... 1,470 2 6 Budget exceeded by ... ... 470 2 6 Total ... 1,000 0 0
A VII. *b.*	Repairs of 8 rest-houses ...	152	Done at a cost of Rs. 82-12-0.
A.VII. *c.*	Pallanapur well ...	200	Finished, Rs. 194-6-6 spent.
"	Moraina " ..	100	" Rs. 154-13-0 spent. The excess of Rs. 54-13-0 was on account of bricks turning out bad.
A.VII. *c.*	Excavation of Marha tank ...	50	Finished, Rs. 56-6-7 were spent.
A.VIII. *a.*	Demarcation or ditching 32 miles,	800	Finished at a cost of Rs. 799-10-0, or Rs. 25 per mile.
A.VIII. *d.*	Sissu plantation at Marha ...	200	Rs. 131-3-8 spent in the year.
A.VIII. *e.*	Repairs of 5 miles 5 furlong, of fire lines	400	Sixty miles 3 furlongs of fire paths were repaired for Rs. 362-11-6 at Rs. 6 per mile.
"	Fire conservancy establishment ...	950	Rs. 763-8-4 were spent.
"	6 fire wells at Rs. 80 ...	240	Not taken in hand for want of funds, the money being spent on works under other heads.
"	Dagbailing for burning purposes, 10 miles.	60	sixteen miles of dagbailing at a cost of Rs. 57-12-0.
"	Grass cutting and burning ...	350	Rs. 346-11-5 were spent.
"	Fire line 3 miles from Muzbutta to Chaltwa.	...	Not proposed in the working plan, 3 miles of fire path was constructed at a cost of Rs. 74-9-3, or Rs. 25 per mile, owing to the new extension of the closed area sanctioned in G. O. No. $\frac{573}{151-10}$ of 24th December, 1884.

APPENDIX A.—(*continued.*)

FOREST DEPARTMENT, N.-W. P. AND OUDH, OUDH CIRCLE.

Annual Plan of Operations.

Budget heads.	Sanctioned plans.	Rupees.	How far carried out.
	BHIRA SUB-DIVISION—(*concluded.*)		
A. VIII. *e*	Fire path 4 miles 4 furlongs from Salabatnagar to Kharainta.	...	Not proposed in the working plan. Four miles 4 furlongs were made at a cost of Rs. 122-3-6, or Rs. 27 per mile on account of the above extension.
	Fire chowki at Mailani ...	...	Not proposed in the plan of works. A fire chowki was constructed at Mailani at a cost of Rs. 35-6-0. This was necessary for the man in charge of the closed area.
	KHERI (TRANS-SARDA) DIVISION.		
	Felling, logging and carriage to depôt of 2,500 logs, carting and rafting 3,500 logs from forest to Bahramghát, felling 10,000 crooked sál and asna trees for sleepers, sawing and carting 100,000 sleepers, making 100 canoes of hollow-trees, clearing Soheli river of snags, and establishment on the above works.	1,48,000	Regular budget ... ... Rs. 2,41,820 Additional grant No. I. ... ... 27,000 Ditto, ditto II. ... ... 30,449 The sum of Rs. 3,03,269 was spent in all during 1884-85 under A.I. 2,500 trees felled. 3,354 logs carted to depôt. 3,418 logs rafted to Bahramghát. Done. 109,787 sleepers were sawn, of which 95,085 were passed and paid for, the remainder were classed as rejections and not paid for in addition to them. 102,369 rafted to Bahramghát. 69,575 carted to Shâhjahânpur. 26,342 railed to Cawnpore. 23,705 railed to Lucknow.
A. VII. *a.*	Clearing and repairing all existing roads and lines, 283 miles, Nepal boundary line. Dismantling and reconstructing bridge of boats over the Sarda, making bridge over Soheli river at Dudua, and repairing all existing bridges.	3,000 1,500	3,000 sanctioned. Done 1,500 extra allotment. 5,433 exceeded by 9,933, total spent Done.
A. VII. *b.*	Annual repairs to all existing buildings.	2,500	Repairs done.
	Constructing a 1st class rest-house at Salukapur.		Rest-house incomplete, allotment 2,500 exceeded by 1,200 total spent 3,700
	Collection of material for 2nd class rest-house at Changanala.		In progress.
" " *c.*	Constructing wells at Phuta-kua junction of main line with the Nepal boundary line and at Salukapur sinking 3 cylinders of Dudua new well.	700	Three wells finished. The sinking of the 3rd section of the new well at Dudua was in progress, 3 new wells were commenced. Estimate exceeded by about Rs. 700.
A. VIII. *e.*	Protecting 64½ s. miles of forests closed to fire and cattle grazing in the Dudua and Kusambha blocks.	2,700	Excepting 10 acres all saved up to date of writing report. Estimate exceeded by Rs. 219.
A. VIII. *f.*	Creeper cutting in the Newalkhar Sub division.	450	Creepers have been cut in the block to the south of the main Dudua line between No. 2 and No. 3 Soheli lines, in all 543 acres under estimate.
	BAHRAMGHÁT DEPÔT.		
A. I. *a.*	Timber operation	48,000	3,193 logs were landed in the depôt by means of steam plough engines at about 2 annas and 1½ pies per log. The balance of indent at commencement of the year was ... ... 7,455 c. ft. Received during the year ... ... 62,827 70,282 Executed and supplied ... 30,214 Cancelled ... ... 12,229 42,443 Balance 27,839 3,835 sleepers were sawn. A new tiled shed was completed. The existing depôt roads were repaired. Rs. Total cost ... 29,529 48,000 ... ... 4,534 34,063 ... ... 34,063 13,937

APPENDIX A.—(*Continued.*)

FOREST DEPARTMENT, N.-W. P. AND OUDH, OUDH CIRCLE.

Annual Plan of Operations.

Budget heads.	Sanctioned plans.	Rupees.	How far carried out.	Rs.
			BAHRAICH DIVISION.	
A Ia.	Timber operations	1,900	Payment of sleeper works completed in previous year	1,330
			Carting of 3,750 sleepers into Bahraich ...	412
			Sundries	271
			Total cost	2,013
A VIIa.	Repairs of roads; completion of Kain bridge; repairs of other bridges.	6,480	Done at a cost of	634
			Do. " "	243
			Do. " "	80
	A road off Nepal boundary ...	...	10 miles done, and 10 miles remain to be done ...	962
	Widening of middle line in Belaapur, 15 to 30 feet.	...	5 miles done, and 8 miles undone	313
	A road off Nepal boundary in Sonpathri.	...	Not done.	
	Widening of middle line in Sonpathri from 15 to 30 feet.	...	Do.	
	Widening of Abdullaganj Gulaldeh line in Charda from 15 to 30 feet.	...	Do.	
	Widening of Abdullaganj Pillar 23 line in Charda.	...	Done at a cost of	129
	Widening middle line in Chakia ...	...	Done at a cost of...	371
	A line of 10 miles along Nepal boundary in Chakia.	...	Not done.	
	A line from Khoria to Kakroha in Motipur.	...	Do.	
	Line from Jallia to Murtiha midway.	...	Do.	
	Line from Dharmapur to Pillar 66.	...	Do.	
	Line from Tara Tal to Rampurwa.	...	Do.	
	Line along Nepal boundary ...	...	Do.	
	Widening Simri Malmalla and Murtiha line.	...	Done at a cost of	108
	To widen the Jallia Salarpur line,	...	Not done.	
	Do. Dharmapur Dubra line	...	Do.	
	Do. Nishangarbah Pillar 72 line.	...	Do.	
	Do. Tara Tal line. ...	...	Do.	
	Do. Rampurwa Chaparia line	...	Done at a cost of	280
	Completing lines in Bhinga Sub-division.	...	Do. do.	80
	Do. do. in Sohelwa ...	...	Do. do.	176
			Lines subsequently sanctioned by Conservator.	
	To widen Simri Malmalla, Murtiha line an additional 20 feet.	...	Done at a cost of	73
	To widen Murtiha Salarpur line,	...	Do. do.	434
	Do. Rampurwa Chaparia line,	...	Do. do.	139
			Rs.	
	To Salarpur Murtiha path ...		Done at a cost of 28	
	" Nishangarah Motipur path ...		Do. do. 30	
	" Nepal boundary line ...		Do. do. 882	
	" Contour line, Murtiha Malmalla and Dharmapur.		Do. do. 282	
	" Dharmapur line	...	1 mile done ... ... 98 2 miles remain to be done 488	
	" Nepal boundary line in Chakia,		Spent — 5,823	
			Done. Sanctioned ... ... 6,480 Spent 5,823	
			Less spent ... 657	
A. VIIb.	To complete two first-class rest-houses.	7,700	One nearly completed, other will be completed during the rains, cost	6,611
	Out-houses at Chakia ...		Done	245
	Ditto Nishangarah ...		Not done.	
	To make a pucca flooring from 3rd class rest-houses.		Material got ready for the purpose.	
	Repairing existing buildings ...		Done at a cost of 1,140	
				7,699

APPENDIX A.—(*continued.*)

FOREST DEPARTMENT, N.-W. P. AND OUDH, OUDH CIRCLE.

Annual Plan of Operations.

Budget heads.	Sanctioned plans.	Rupees.	How far carried out.
	BAHRAICH DIVISION—(*concluded*).		Rs.
A.VIIc.	To complete four wells ...	2,700	Two only completed, cost 840
	„ sink two wells		Not done.
	„ cover up all wells with a wooden flooring.		Done to 11 wells 91
			Eight remaining undone.
	Clearing wells		Done 2
	Sundries		Do. 11
			Estimate ... 2,700 — 944
			Spent ... 744
			Less spent ... 1,756
A.VIIIa.	Erecting posts in Motipur ...	500	1,535 posts put up and 323 posts prepared for erection, 704
	Clearing boundary line ..		Done 16
			720
A.VIIId.	Care of existing plantation ...	500	Do. 24
	Experimental sowings of sál and sissu.		Do. 217
			Total 241
A.VIIIe.	Fire protection of 136 square miles of forest	3,000	2,031
A.VIIIf.	Cutting down all the creepers in the Bilaspur block.	1,075	Done at a cost of 342
	Cutting down all the creepers in Charda.	...	Do. ditto 353
	Sundries		Do. ditto 154
			Total 849
	GONDA DIVISION.		Rs. a. p.
A.Ia.	Felling, sawing, carting of 5,000 cubic feet sawn timber.	5,000	3,472 cubic feet of timber sawn at a cost of... 4,102
			207 experimental dhao sleepers were prepared.
			434 cubic feet of jamun scantlings were prepared for Tulsipur dispensary.
A.II.	Timber removed by consumers ...	712	Done at a cost of 684 0 0
III.	Confiscated drift and waifwood ...	64	Do. do. 64 0 0
A.VIb.	Feed and keep of cattle ..	650	Do. do. 576 8 0
A.VIc.	Stores, tools and plants, furniture for rest-house.	150	Do. do. 323 8 0
A.VIIa.	15 miles of new roads were proposed to be made in the Nawabgunj and Tulsipur forests.	1,000	Expended 365 0 0
			The existing lines and roads were kept in repairs.
			The proposed lines were not taken in hand, as there was money difficulty.
A.VIIb.	Buildings	1,000	Amount expended 1,057 0 0
	Establishment Rs. 276, and Mr. Rebsch proposed expending Rs. 724 on collecting materials for four new rest-houses, but no sanction had been applied for on account of them.		As under—
			Establishment 254 0 0
			Chandanpur rest-house, part cost of the building 512 0 0
			Repairs of Ramgarh rest-house 195 0 0
			Hut and Chauki at Bhagwanpur ... 96 0 0
			Total ... 1,057 0 0
A.VIIc.	Other works	100	Nothing done.
A.VIIa.	Demarcation	200	Rs. 2-12-0 only expended.
	For clearing the existing boundary ditches.		
A.VIIe.	Protection from fire	500	Spent 196 0 0
A.VIIf.	Other works	400	Expended Rs. 260 on account of pay of establishment.
IXa.	Refund	50	No expenditure.
b.	Law charges	50	Ditto.
c.	Other charges	100	Ditto.
	GORAKHPUR DIVISION.		Rs. a. p.
A.Ia.	Sleeper operation	2,000	Done. Temporary establishment ... 60 0 0
			Rafting logs 3,300 ... ... 2,394 4 2
			Carting and carriage of sleepers 204 15 8
			Total ... 2,659 3 10

APPENDIX A.—(*concluded.*)

FOREST DEPARTMENT, N.-W. P. AND OUDH, OUDH CIRCLE.

Annual Plan of Operations.

Budget heads	Sanctioned plans	Rupees	How far carried out.	Rs.	a.	p.
			GORAKHPUR DIVISION—(*concluded*).			
b.	Fuel operation	3,680	Done as detailed below :			
			Stacking fuel	278	9	0
			Cutting and carriage of fuel	364	2	3
			Fuel operations of 1883-84 ... } Adjusting in 1884-85 ...	4,248	0	0
			Fuel operation of 1884-85	3,534	11	6
			Collecting fuel chips	2	12	0
			Total ...	8,428	2	9
A II	Timber and other produce removed from the forests by consumers or purchasers.	1,600	Establishment	1,456	8	11
			Contingencies	135	6	9
			Total ...	1,591	15	8
VI *b*	Feed and keep of cattle ...	800	Done at a cost of	601	2	6
c.	Tools and instruments, purchase of two pals and 1 hill tent.	300	Not done, but chapras plates and bhujalies were purchased at a cost of	251	13	0
VII*a*	Roads and bridges	1,500				
	Cutting new lines on both sides of railway lines ... Rs. 400		Not done—only grass and the small bushes have been cleared.			
	Making Chatri bridge ... 200		Chatri bridge	32	13	4
	Repairs to old roads ... 700		Sakhui road	75	0	0
	Completing roads in Sonari... 200		Chauk	26	8	11
			Mandahulia road	190	3	9
			Clearing Sonari	18	8	0
			Total ...	343	2	0
			No new roads made.			
A VII. *a*	Buildings ...	3,000				
	Repairs to old rest-houses, Rs. 800,	...	Repairs to Daibbar, Pakri, Sakhui Chouk and Chaumukha, rest-houses at a cost of.	733	7	5
	Other works on rest-houses, Rs. 2,200.					
			Construction of out-offices at Chaumukha, Banspar, and Ramgarh, &c. ...	1,650	0	4
			Total ...	2,383	7	9
A. VII *c.*	Other works	500	Pakri rest-house well ...	49	3	8
	Repairs to old well Rs. 300 ...	...	Purchase of dredger ...	7	0	0
	Ramgarh new rest-house wells, Rs. 200.	...	Ramgarh nursery well ...	259	1	0
			New Ramgarh rest-house well ...	220	11	10
			Total ...	536	0	6
A. VIII. *a*	Demarcation ...	6,600	Done at a cost of ...	2,520	7	9
b	Compensation for Chowmukha and Pakri rest-houses.	160	Money was paid to the Collector but returned.			
			Nil.			
c.	Surveys and working plans ...	20	Done at a cost of ...	5,504	9	8
d	Plantation ...	3,000	This includes forest arboriculture operations as well as plantations.			
e.	Protection from fire ...	1,500	Done at a cost of ...	1,352	11	3
f	Other works ...	2,000	Temporary establishment ...	1,294	5	7
			Cutting creepers ...	197	7	10
			Thinnings of 1883-84 adjusted in 1884-85 ...	5,815	0	0
			Ditto of 1884-85 ...	508	11	1
			Total ...	7,815	8	6
A IX *b.*	Law charges ...	1,000	Pleader's fees for prosecuting Government timber fraud cases ...	1,000	0	0
			Diet of witnesses ...	112	3	11
			Total ...	1,112	3	11
c.	Other charges —	100	Extra establishment employed in protecting timber connected with the late frauds ...	517	13	1
			Carriage of articles of evidence in the late frauds case ...	77	9	8
			Total ...	595	6	9

NAINI TAL,
The 17th July, 1885.

J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX B.

Abstract showing existing roads and fire lines in the Oudh Circle corrected to end of March, 1885.

	Pilibhit.		Bhirga.		Kheri.		Bahraich.		Gonda.		Gorakhpur.		Total.	
	Mile.	Furlong.	Mile.	Furlong.	Mile.	Furlong.	Mile.	Furlong.	Mile.	Furlong.	Mile.	Furlong.	Mile.	Furlong.
Main road 60′ wide	...	...	...	...	...	...	16	1	...	...	...	...	16	1
„ 50′ „	...	...	...	...	...	...	2	1	...	...	...	...	2	1
„ 40′ „	...	...	...	...	...	...	9	2	...	3	...	...	9	5
„ 30′ „	...	...	3	...	...	...	1	3	...	...	...	...	4	3
„ 20′ „	9	...	...	...	...	...	1	7	...	...	...	...	1	7
Cart road 15′ „	...	...	3	...	...	...	...	...	7	1	...	...	19	1
Path 3′ „	25	1	20	6	...	...	...	...	...	...	...	...	45	7
„ 6′ „	3	7	...	...	...	...	...	...	...	...	...	...	3	7
Total ... 1884-85 ...	38	...	26	6	...	...	30	6	7	4	...	...	103	...
Total ... 1883-84 ...	109	1	117	...	239	7½	315	3½	53	4½	43	...	878	½
Total up to end of 1885 ...	147	1	143	6	239	7½	345	1½	61	½	43	...	981	½

DATED NAINI TAL,
The 16th July, 1885.

C. J. PONSONBY,
Offg Conservator of Forests,
North Western Provinces and Oudh, Oudh Circle.

APPENDIX C.

FOREST DEPARTMENT, N.-W. P. AND OUDH, OUDH CIRCLE.

Summary showing the total yield of timber during the year 1884-85.

Description of trees.	Selection fellings, i.e., felling of mature trees.						Thinnings.						Clearances								Total.		Remarks.
	By Government agency.		By contractors.		Total.		By Government agency.		By contractors		Total.		By Government Agency.		By contractors.		By villagers.		Total.				
	No.	Cub. ft.	No.	Cub. ft	No.	Cub. ft.	No.	Cub. ft.	No.	C.ft.	No.	Cub. ft.	No.	Cub.ft.	No.	Cub. ft.	No.	Cub. ft.	No.	Cub. ft.	No.	Cub. ft.	
Sal timber	2,551	2,01,160	...	...	2,551	2,01,160	...	...	...	..	...	...	...	...	...	...	...	...	...	...	2,551	2,01,160	Regular selection fellings, 2,551 trees were felled of these 47 turned out bad
Sal ,, ...	6 739	2,11,653	1,227	50,680	7,966	2,62,333	8,737	21,680	...	...	8,737	21,680	610	900	81,727	1,13,305	243	3,645	82,580	1,17,850	99 283	4,01,563	
Asna	1,253	88,736	59	2,153	1,312	90,889	15	306	...	..	15	306	1,020	1,020	27,754	61,078	...	...	28,774	62,098	30,101	1,53,293	
Sissu	...	...	4	47	4	47	1	4	...	...	1	4	...	...	243	317	...	...	243	317	248	368	
Jibao	...	...	...	...	...	...	123	123	...	...	123	123	...	...	207	369	...	...	207	369	330	392	
Mahua	...	...	73	1,525	73	1,525	1	40	...	...	1	40	...	...	...	...	...	...	...	...	74	1,565	
Kosum	...	...	52	996	52	996	...	...	...	...	...	...	...	...	343	716	...	...	343	716	395	1,712	
Jamun	...	...	239	6,270	239	6,970	40	61	...	...	40	61	33	264	828	6,488	31	310	892	7,062	1,171	14,093	
Khair	...	...	...	...	...	...	1	1	...	...	1	1	...	...	4,591	4,591	...	...	4,591	4,591	4,592	4,592	
Tikoe (Haldu) ...	...	...	101	2,380	101	2 380	...	...	...	...	...	...	2	28	102	408	...	...	104	436	205	2,816	
Asidh	...	...	12	300	12	302	...	...	...	...	...	...	...	...	19	213	...	...	19	213	31	516	
Babera	...	...	27	847	27	847	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27	847	
Sundri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	
Miscellaneous ...	...	...	20	800	20	800	1,60,204	2,40,840	...	...	1,60,204	2,40,840	722	1,805	6,01,580	14,65,129	14,95,494	13,92,295	20,97,796	28,59,229	22,58,020	31,[illegible]0,869	
Bamboos	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	5	...	...	5	5	5	5	
Total... 1884-85 ...	10,543	5,01,549	1,814	66,700	12,357	5,68,249	1,69 122	2 63,055	...	...	1,69,122	2,63,055	2,887	4 017	7,17,399	16,52,519	14,95,768	13,96,250	22,15,554	30,52,786	23,97,033	38,84,090	
Total... 1883-84 ...	46,545	15,17,450	3,341	1,30,296	43,886	16,47,746	2 51,505	2,68,112	...	...	2,51,505	2,68,112	272	3,090	1,85,399	3,46,308	9,09,293	4,87,155	10 94,964	8,36,551	13,90,355	27,52,409	
Difference More ...	...	...	...	...	...	...	...	...	...	...	...	...	2,115	927	5,32,000	13,06,211	5,86,475	9,09,097	11,20,591	22,16,235	10,06,678	11,31,681	
Difference Less ...	30,002	10,15,901	1,527	63,596	31,529	10,79,497	82,383	5,057	...	...	82,383	5,057	...	...	...	...	...	...	...	...	...	...	
	Less sleeper operations.		Less timber removed by contractors.				Less thinning in Gorakhpur no demand for fuel by Railway as last year.						More Poles felled.		More saplings and Poles removed by contractors.		More free produce given to privileged villagers.						

NAINI TAL:
The 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX D.

Forest Department, Oudh Circle, N.-W. P. and Oudh.

Summary showing timber and other produce cut and collected by Government Agency and disposed of during the year 1883-84 and 1884-85.

Description.	Sold locally, i.e., not brought to depôt.		Balance in hand at commencement of the year.		Brought to depôt.		Total.		Removed by purchasers from depôt.		Converted in depôt.		Lost or written off as useless.		Used by the department.		Total issues from the depôt.		Balance in hand at close of year.	
	Number.	Value.	Number.	Value.	Number.	Value	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
1883-84.																				
Timber c. ft	2,982	2,872	6,29,473	3,36,542	26,96,385	16,43,061	33,25,755	19,79,603	6,11,334	6,09,539	18,78,619	9,39,309	627	157	13,983	3,496	25,04,563	15,52,491	8,21,195	4,27,112
Drift timber "	7,382	2,007	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saplings "	211	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poles No.	18	6	2,332	471	347	2,168	2,679	2,639	1,105	1,465	44	11	8	2	1,072	268	2,230	1,746	449	393
Bamboos "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds.	410	28	66	7	29,240	2,125	29,306	2,132	28,390	2,023	...	...	66	7	...	...	28,456	2,030	850	102
Charcoal "	45	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Minor produce "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	10,998	5,000	6,31,771	3,37,020	27,25,972	16,47,354	33,57,743	19,84,374	6,40,829	6,13,017	18,78,663	9,39,320	701	166	14,056	3,764	25,35,249	15,56,267	8,22,494	4,28,107
1884-85.																				
Timber c. ft.	...	...	8,21,195	4,27,112	11,55,659	8,66,743	19,76,854	12,93,855	3,68,672	2,76,504	3,70,935	2,78,202	1,958	1,468	10,992	8,244	7,52,567	5,64,418	12,24,[illegible]	[illegible]437
Drift timber "	196	52	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saplings "	45	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poles "	5,211	9,416	449	893	3,435	6,876	3,887	7,769	2,379	4,758	24	48	...	...	...	...	2,403	4,806	1,484	2,963
Bamboos "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Firewood, mds.	...	...	850	102	64,202	6,420	65,052	6,522	53,972	5,397	...	...	3,930	393	...	...	57,902	5,790	7,150	732
Charcoal "	2	1	...	...	50	25	50	25	...	...	...	...	...	...	...	...	...	...	50	25
Minor produce "	18	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	5,472	9,511	8,22,494	4,28,107	12,23,349	8,80,064	20,45,843	13,08,171	4,25,023	2,86,659	3,70,959	2,78,250	5,888	1,861	10,992	8,244	8,12,862	5,75,014	12,32,981	7,33,157
1883-84 ...	10,998	5,000	6,31,771	3,37,020	27,25,972	16,47,354	33,57,743	19,84,374	6,40,829	6,13,017	18,78,663	9,39,320	701	166	14,056	3,764	25,35,249	15,56,267	8,22,494	4,28,107
1884-85 ...	5,472	9,511	8,22,494	4,28,107	12,23,349	8,80,064	20,45,843	13,08,171	4,25,023	2,86,659	3,70,959	2,78,250	5,888	1,861	10,992	8,244	8,12,862	5,75,014	12,32,981	7,33,157
Difference ...	−5,526	+4,511	+1,90,723	+91,087	−15,02,623	−7,67,290	−13,11,900	−6,76,203	−2,15,806	−3,26,358	−15,07,704	−6,61,070	+5,187	+1,695	−3,064	+4,480	−17,22,387	−9,81,253	+4,10,487	+3,05,050

Dated Naini Tal,
The 13th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX E.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

Statement of forest produce given free to the privileged villagers during the year 1884-85.

Divisions.	Description of forest produce given free.	Number or quantity.		Amount. Rs. a. p.	Remarks.
Pilibhit	Thatching grass ...	Cart load @ As. 0 8 0	177	88 8 0	Pargana Pilibhit.
	,, ,, ...	,, Rs. 1 0 0	3	3 0 0	,,
	No statistics available for Pargana Puranpur, but it is estimated to be about	... ...	...	10,000 0 0	Pargana Puranpur, this is approximate only.
		Total	...	10,091 8 0	
Bhira...	Poles and saplings ...		56,211	625 0 0	,,
	Firewood (maunds) ...		53,273	72 0 0	,,
	Minor produce ...	...		285 0 0	,,
		Total	...	982 0 0	
Kheri...	Saplings ...	Cart load @ Rs. 1 0 0 each	4,298	4,298 0 0	,,
	Ridge poles ...	,, ,, 0 0 0 ,,	737	737 0 0	,,
	Props and posts ...	,, ,, 0 0 0 ,,	2,803	2,803 0 0	,,
	,, dry sal ...	,, ,, 2 0 0 ,,	83	166 0 0	,,
	Plough dry sal ...	,, ,, 0 8 0 ,,	160	80 0 0	,,
	Firewood (maunds) ...	,, ,, 0 2 0 ,,	5,846	730 12 0	,,
	Munj ...	,, ,, 0 8 0 ,,	1,109	1,663 8 0	,,
	Grass ...	,, ,, 0 2 0 ,,	5,771	696 2 0	,,
	Reed ...	,, ,, 0 6 0 ,,	4,854	1,820 4 0	,,
	Baib grass ...	,, ,, 1 0 0 ,,	56	56 0 0	,,
	Grass for making brooms ...	,, ,, 0 2 0 ,,	29	3 10 0	,,
	Grazing Cows ...	Number ,, 0 2 0 ,,	3,588	448 8 0	Tharu cattle free grazing.
	Grazing Buffaloes ...	,, ,, 0 4 0 ,,	982	245 8 0	
		Total	...	13,748 4 0	
Bahraich	Unreserved wood posts ... Props koros and saplings, &c.,	Number	6,08,377	41,886 0 0	,,
	Firewood ...	Head loads	1,61,052	2,516 0 0	,,
	Thorns ...	,,	24,263	126 0 0	,,
	Agai leaves ...	,,	191	12 0 0	,,
	Baskets and brooms ...	,,	1,488	23 0 0	,,
	Long grass ...	Bundles	11,07,664	2,768 0 0	,,
	Reeds ...	,,	43,347	1,355 0 0	,,
	Jamun trees ...	Number	31	93 0 0	,,
		Total	...	48,779 0 0	
Gonda	Unreserved props ...	Head loads @ Rs. 0 4 0 each	3,454	863 8 0	,,
	,, posts ...	,, ,, 0 0 0 ,,	8,379	883 12 0	,,
	,, poles ...	,, ,, 0 0 0 ,,	12,631	791 15 9	,,
	,, "parodha" ...	,, ,, 0 2 0 ,,	2,822	290 4 0	,,
	,, withies ...	,, ,, 0 1 0 ,,	7,721	479 7 0	,,
	,, ridge pole ...	,, ,, 0 6 0 ,,	2,082	344 12 0	,,
	,, santa ...	,, ,, 0 1 0 ,,	981	61 5 0	,,
	,, firewood ...	,, ,, 0 0 0 ,,	26,406	177 5 1	,,
	,, reeds ...	,, ,, 0 1 0 ,,	293	15 1 6	,,
	,, long grass ...	,, ,, 0 0 1 ,,	17,456	96 14 6	,,
	,, harrow ...	,, ,, 0 3 0 ,,	53	9 15 0	,,
	,, yoke ...	,, ,, 0 1 0 ,,	64	4 0 0	,,
	,, plough wood ...	,, ,, 0 1 0 ,,	376	23 8 0	,,
	Elephant fodder ...	Loads ,, 0 1 0 ,,	378	23 10 0	For the Maharani of Bairampur's elephants
		Total	...	4,065 5 1	
		Grand total	...	77,666 1 1	

DATED NAINI TAL,
The 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX F.

Forest Department, N.-W. P. and Oudh, Oudh Circle.

Summary showing the total yield of produce of all kinds for the year 1884-85.

Produce.	Total yield, 1883-84.		Total yield, 1884-85.		Difference.				
					More.		Less.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Timber, cubic feet	16,47,746	5,49,249	5,68,249	1,89,416	...	...	10,79,497	3,59,833	Less timber felled than last year.
Saplings "	2,68,112	33,137	2,63,055	32,882	...	...	5,057	255	Less thinnings done than last year as the demand for fuel was less.
Poles, &c., No.	10,94,964	1,36,870	30,52,786	3,81,598	19,57,822	2,44,728	...	...	More poles and saplings were removed by contractors and privileged villagers during 1884-85 than during 1883-84.
Bamboos, scores	46	58	5	1	...	...	41	57	
Firewood, maunds	98,544	32,116	2,53,772	14,027	...	...	...	18,089	
Charcoal "	36,221	3,474	22,328	3,425	...	...	...	49	
Minor produce	...	49,186	...	44,339	...	...	...	4,847	Decrease owing to less demand for minor produce.
Grazing dues	...	36,634	1,95,169	38,404	...	1,870	...	...	
Confiscated and drift timber, cubic feet,	7,382	4,372	871	3,441	...	...	6,511	931	The quantity of timber collected by contractors in Bahraich has not been included in this as the quantity was not known.
Total ...	...	8,45,096	...	7,07,533	...	...	...	1,37,563	

Dated Naini Tal,
The 15th July, 1885.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

APPENDIX G.

ARBORICULTURE REPORT FOR THE YEAR 1884-85.

Gorakhpur District.

27. The works carried on during the year are as follows :—

Weeding and watering the mango and English peach grafts, killing out grass by sowing, crops of Indian corn, gram, potatoes and yams, planting, replacing, watering and fencing seedlings on the road sides, repairs of wells and the commencement of two new wells and sale of crops.

28. It was proposed to build a brick wall round the arboriculture garden, but this has not been done owing to extra expense incurred in the year's operations.

29. The Banspar nursery was started and is composed of some 10,000 seedlings. The planting of the Mahuawal and Padrawna road was carried on and about seven miles planted. These trees will be made over to zamindars for protection and maintenance.

30. The two old wells were cleared and two other wells are being sunk. It is of the utmost importance to have a good supply of water as bunda and other crops, such as potatoes, ginger and turmeric require frequent irrigation.

31. The whole area has been cleared and about two acres more has been added to make the block compact.

32. The total amount realized and unrealized on account of the crops was Rs. 500-8-0 and the details are given below :—

	Rs.	as.	p
From damages done in mango garden	30	0	0
,, Sale of grass on Hatta road side plantation ...	20	14	0
Total ...	50	14	0

Unremitted revenue for 1884-85.

	Rs	as	p.
From sale of grass	30	0	0
,, Indian corn	150	0	0
,, bunda	40	0	0
,, grass plantation, &c.	91	10	0
Total ...	311	10	0

Crop stored for sale.

	Rs.	as	p.
Potatoes	60	0	0
Bunda	60	0	0
Gram	18	0	0
Total ...	133	0	0

33. The pine apples have been almost all destroyed by pigs, who seem to like the roots.

The few remaining are flowering and expected to do well.

34. Frost has done a great deal of injury to the gram and other crops on the ground, as also to the plantain trees surrounding the garden. The plantains have brought in a small profit, and when extended will no doubt prove valuable.

35. Grafted mangoes.

Six hundred grafted mango trees were procured from Lucknow, making the total number of grafted mango trees to 729. The mango trees as usual flowered

very abundantly, but a poor crop is expected. The trees are evidently too young to yet to bear well. These have all been protected up to April from frost by grass covers ("Topas") as formerly we lost a number of trees in March by frost.

36. The peach trees received from Ranikhet flowered, but did not fruit. This must be owing to the pruning of the trees not being carried out at the proper time. I have a small manual on gardening and my directions could not have been carried out, for it is difficult to make the gardener understand that the delay in pruning of even a week or two is fatal to the fruit. On the other hand the trees may be too young though the ordinary kind flowered and fruited at the age, that is, 1½ years.

37. About 100 grafts were taken from the mature mango trees. Out of these about 50 were destroyed at different times by cattle trespassing in the garden and by the carelessness of the coolies in charge. About 41 grafts are available, and these will be kept for filling up any blanks caused by deaths in those put down this year.

38. No seedlings were reared in the central nursery this year, as they were not required for road-side planting. Carobs seem to be incapable of doing well unless great care is taken of them, and this is impossible on road-side plantations.

The old seedlings in the central nursery were all dug out as they had got too large and old for planting.

39. The trees on the Hatta and Kasia road are doing very well. Some of the jack trees flowered, but the fruit fell off when the size of fowls' eggs. The Pipraich road plantation has done very well, and some of the young sissu are 8 and 9 feet high. Sissu is much more likely to succeed than any other trees, as I have made this my special study, and can grow it in any locality at all favourable for its growth.

40. The wire netting is now used to protect the bunda crop, which has been sown in place of the seedlings removed from the nursery.

41. I visited the sissu road side plantation in the Dumri estate. This has been done by Mr. Turner under my direction. Mr. Turner has shown a great deal of zeal and has taken great pains to make the plantation successful. The trees are doing remarkably well, and by the end of the ensuing rains will be eight or ten feet higher.

Mr. Turner has found that the method introduced by me, that is, cutting the seedlings close to the ground and leaving one or two inches of stem to decrease evaporation is perfect.

42. My thanks are due to Mr. Turner for carrying out this experiment so successfully. The sand hills at Dumri could not be planted as they are required for cattle grazing. This is due to the whole of the available land being taken up for cultivation.

(Sd.) A. CAMPBELL,
Forest Officer, Gorakhpur.

ERRATA.

FOREST SCHOOL CIRCLE, NORTH-WESTERN PROVINCES AND OUDH.

REPORT OF ADMINISTRATION FOR 1884-85.

Page	5 line	44	For *clumps* read *stumps*.
,,	5 ,,	47	,, *clumps* read *shoots*.
,,	6 ,,	52	,, *lands* read *land*.
,,	7 ,,	40	,, *forest* read *forests*.
,,	9 ,,	31	,, 22,844 read 2,28,442.
,,	10 ,,	1	,, 447 read 441.
,,	10 ,,	7	,, 2,254 read 2,253.
,,	13 ,,	21	,, 359 read 197.
,,	13 ,,	22	,, 161 read 88.
,,	15 ,,	16	,, *Deoban* read *Deodar*.
,,	20 ,,	31	For *Brown* read *Broun*.
,,	24 ,,	46	Omit.
,,	26 ,,	31	,, *district* read *divisional*.
,,	29 ,,	29	,, *Lmbatách* read *Lambatách*.
,,	29 ,,	46	,, *Eastern* read *Western*.
,,	31 ,,	1	Before *patch* add *bare*.
,,	38 ,,	30	(Buildings). For 8,713 read 8,714.
,,	39 ,,	3	For 2,254 read 2,253.
,,	39 ,,	12	(Total) for 211—4 read 211—41.
,,	41 ,,	15	For *placed* read *place*.
,,	41 ,,	23	After *bridge* add "*over the Pabar*."
,,	42 ,,	6	For 9·6 read 9·8.
,,	45 ,,	36	(Total Selection fellings) for 2,398 read 2,298.
,,	46 ,,	32	(Jaunsár) for 256 read 258.
,,	49 ,,	6	(Charcoal) for 1,123 read 1128.
,,	49 ,,	21	(Firewood total) for 160,854 read 160,864.
,,	49 ,,	36	For 4,434 and 4,467 read 4,024 and 4,067 respectively.
,,	51 ,,	32	(Total) for 1,63,802 read 1,43,802.
,,	54 ,,	31	For *from* read *for*.
,,	63 ,,	14	For *they* read *there*.
,,	63 ,,	last line	—For 3,84,541 read 384,551.
,,	69 ,,	1	(Column 4 against Rawai) for 4,129 read 4,429.
,,	84	Column 10 (against used by Department total). For 12,375 read 12,537.	
,,	116	Appendix H, column 19, against total Jaunsár. For 1,5143 read 18,143.	
,,	117	Ditto J, column 3 (Total). For 1,608 read 16,085.	

W. R. FISHER,

Offg. Conservator of Forests, School Circle, N.-W. P.

ERRATA.

Forest School Circle Administration Report, 1884-85.

IN consequence of the receipt of Comptroller-General's No. S.D.880, dated 2nd December, 1885, directing the inclusion of Rs. 2,207-6-2 in the revenue of the Jaunsár division, the following errata are necessitated :—

Page 4, para. 5, line 1, *for* 93,162 *read* 95,369.

Page 11, para. 20, line 7, *for* 6.400 *read* 6,418.

Page 55, statement of Financial results, Jaunsár division, columns 5 and 13, *for* 39,043 and 4,211 *read* 41,250 and 6,418 respectively.

Page 55, statement of Financial results, total, columns 5 and 13, *for* 3,00,594 and 93,162, *read* 3,02,801 and 95,369 respectively.

Page 55, line 44, *for* 93,162 *read* 95,369 and *for* "exclusive of Rs. 2,275" *read* "inclusive of Rs. 2,207."

Page 56, against Jaunsár division and total, columns 5 and 25, *for* 27,134, 39,043, 1,48,552, and 3,00,594 *read* 29,341, 41,250, 1,50,759 and 3,02,801 respectively.

Page 58, statement—against Jaunsár division, 1884-85, columns 2, 4 and 9, *for* 27,134, 2,864, and 4,211, *read* 29,341, 5,071, and 6,418 respectively.

Page 58, statement—against total Jaunsár division, 1884-85, *for* 1,83,595, 29,616, and —22,711 *read* 1,85,802, 31,823 and —20,504 respectively.

Page 58, statement—against averages Jaunsár, 1884-85, columns 2, 4 and 9, *for* 30,599, 4,936 and—3,785 *read* 30,967, 5,304 and —3,417 respectively.

Page 58, statement—against "The Circle" total for 1884-85, columns 2, 4 and 9, *for* 1,48,552, +69,317 and +93,162 *read* 1,50,759 +71,524 and +95,369 respectively.

Page 58, statement—against "The Circle" total for 1884-85 *for* 8,72,711, —471 and —55,482 *read* 8,74,918, +1,736 and —53,275 respectively.

Page 58, statement—"The circle averages," columns 2, 4 and 9 *for* 1,45,452, —78 and —9,247 *read* 1,45,820, +290 and —8,879 respectively.

Page 59, statement—Jaunsár division 1884-85, columns 6, 7, 11 and 12, *for* 39,043, 8·4, ·88 and ·90 *read* 41,250, 8·9, ·84 and 1·39 respectively.

Page 59, statement—total, 1884-85, columns 6, 7, 11 and 12, *for* 3,00,594, 9·81, ·67 and 3·04 *read* 3,02,801, 9·92, ·68 and 3·12 respectively.

Page 59, para. 84, lines 1 and 2, 5 and 7, *for* 29,029, 67,654, 96 and 37,995, *read* 31,236, 69,861, 2,303 and 40,202 respectively.

Page 60, para. 88, line 1, *for* 96 *read* 2,303.

Page 60, para. 88. Add as line 2, There is an increase of Rs. 2,207 for boxwood sold in England.

Page 60, para. 88, lines 7, 8 and 9, omit sentence from Rs. 2,275, &c., to form No. 57.

Page 74, form 53, columns 5 and 7 against I. A. Timber and grand total, *for* 9,371-10-4, 130,790-4-2, 39,043-4-4 and 3,00,593-11-0 *read* 11,579-0-6, 1,32,997-10-4, 41,250-10-6 and 3,02,801-1-2 respectively.

Page 77, form No. 54, column 3, line 2, and total, *for* 3,00,593-11-0, and 6,56,460-1-4 *read* 3,02,801-1-2 and 6,58,667-7-6 respectively.

Page 77, form No. 54, column 4, line 4, and column 5, line 4, and total, *for* 2,34,767-2-6, 2,36,971-14-1 and 6,56,460-1-4, *read* 2,36,974-8-8, 2,39,179-4-3 and 6,58,667-7-6 respectively.

Page 78, form No. 56, columns 4, 5 and 6, against Jaunsár division, *for* 39,228-2-4, 39,316-4-4, and 39,043-4-4, *read* 41,435-8-6, 41,523-10-6 and 41,250-10-6, respectively.

Page 78, form No. 56, columns 4, 5 and 6, against total, *for* 2,92,447-2-0, 3,17,580-0-0 and 3,01,515-11-0, *read* 2,94,654-8-2, 3,19,787-6-2 and 3,03,723-1-2 respectively.

Page 78, form No. 56, column 8, remarks, against (c) and total, *for* 3,00,593-11-0 and 3,01,515-11-0 *read* 3,02,801-1-2 and 3,03,723-1-2 respectively.

Page 79, form No. 57, columns 2 and 7 against Jaunsár, and grand total *for* $\left.\begin{matrix}27,134\\+2,275\end{matrix}\right\}$ $\left.\begin{matrix}39,043\\+2,275\end{matrix}\right\}$ 1,48,552 and 3,00,594, *read* 29,341, 41,250, 1,50,759 and 3,02,801 respectively.

Omit note at foot of the form.

SCHOOL CIRCLE REPORT.

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N.-W. PROVINCES AND OUDH.

SCHOOL CIRCLE.

ANNUAL PROGRESS REPORT
OF
FOREST ADMINISTRATION
FOR THE YEAR 1884-85.

By Mr. W. R. Fisher, B.A., Officiating Conservator of Forests, School Circle.

INTRODUCTION.

Staff of Officers.

1. *Separation of the Forest School from the Circle.*—The most important event of the year has been the transfer of the Forest School to the control of Imperial Government under G. G. O. Circular No. 7F, dated 3rd June, 1884, by which a sum of Rs. 25,000 of Imperial funds was set aside for the expenses of the school, and a further sum of Rs. 5,000 will be paid annually by the Government of India, to the Provincial Forest Budget, to reimburse the province for the larger staff of officers which the Forest School entails.

The Deputy Director of the School will henceforth be entirely paid from Imperial funds. The Conservator of the Circle continues to be Director of the Forest School but draws an allowance of Rs. 200 per mensem from School budget, whilst a sum of Rs. 3,000 has been provided for remuneration of officers of the circle other than the Director, Deputy Director, and Instructor at the Forest School, who may be engaged in instruction. The latter appointment is still Provincial, and either this officer or the Deputy Director will be for the future in charge of the Dehra Dún Forest Division, the other officer giving up his whole time to theoretical and practical instruction, especially in forestry.

The following honoraria were paid during the past year to officers of this circle, who assisted in the instruction at the Forest School:—

	Rs.
Mr. A. Smythies, for Mathematics	500
" N. Hearle, for Botany	500
" A. F. Broun, for Law	200
" M. H. Clifford, for Road-making and building	150
" Ditto for Forest Etiology	200

A separate report has been published on the course of instruction at the Forest School, so that no further notice of it is needed here.

2. *Union of the Tons and Jaunsár divisions.*—The Tons and Jaunsár divisions were united to form the new Jaunsár division by G. O. No. $\frac{405}{195-2}$F, dated 16th September, 1884.

The reasons for the union are:

Firstly, that the work should all be under one experienced officer, so as to avoid the constant division of responsibility due to the transfer of charge of the Jaunsár division from one officer to another whilst the course of theoretical instruction at the Dehra Forest School continued, *i.e.*, from July to November. This transfer of charge is not necessary in the plains divisions, where the divisional officers have little to do in the rains, while in the Jaunsár division important works of all kinds are being carried on.

Secondly, Mr. Moir could control the floating work on the Jumna far much better with head-quarters at Deoban, which is at an easy march from the Dákhpathar depôt, though 60 miles distant from his former head-quarters at Doota.

The accounts of the two divisions were, however, kept separate throughout the year, and it will therefore be more convenient to deal with them separately in the present report.

STAFF OF OFFICERS.

3. Mr. W. R. Fisher has retained officiating charge of the circle, as well as of the Forest School as Officiating Director throughout the year, except from 16th December to 15th March, 1885, when he was on privilege leave.

During his absence, Mr. E. Mc.A. Moir officiated as Conservator in addition to holding charge of the Jaunsár division, and Mr. E. E. Fernandez officiated as Director of the Forest School.

Mr. Fernandez, Officiating Deputy Director, Forest School, is no longer included in the staff of the circle, on account of the transfer of the Forest School to Imperial control. He remained, however, in charge of the Dehra Dún division till the 16th September, when he made over charge to Mr. A. Smythies, from whom the charge of the Saháranpur division was assumed by Mr A. F. Broun.

Dr. Warth, Instructor at the Forest School, was relieved from his suspension on the 6th June, 1884, and retained his post at the Forest School till 11th October, when he was deputed temporarily for six months to the Public Works Department, Panjáb, for work at the coal mines in the salt range, and Mr. A. Smythies has since officiated as Instructor at the Forest School.

Mr. Moir retained charge of the Jaunsár and Tons divisions till the 26th April, 1884, when he made over the Jaunsár division to Mr. Hearle, but resumed charge on the 25th June, and held both divisions till they were united on the 11th October, and also since their union.

Mr. Moir also officiated in charge of the circle, from 16th December to the 15th March, in addition to his other duties.

Mr. N. Hearle returned from his deputation to the Oudh Circle on 21st April, 1884, and held charge of the Jaunsár division till 24th June, 1884, when he was deputed to the Direction division to assist in the instruction at the Forest School. He was appointed to conduct the working plans in the Central Circle on the 25th June, 1884, and remained there till the end of the year.

Mr. M. H. Clifford was attached to the Dehra Dún division till 3rd November, 1884, when he was transferred to the Oudh Circle, and remained there till the end of the year.

Mr. Hobart-Hampden returned from his deputation to the Oudh Circle on 20th April, 1884, since which date he has been attached to the Tons and new Jaunsár divisions.

Babu Karuna Nidhan Mukerji, Sub-Assistant Conservator of Forests, was by the order of Government reduced to the rank of Forest Ranger, 1st grade, from 24th June, 1884, to 23rd December, 1884, in consequence of great carelessness in settling a boundary dispute, which was referred to in last year's annual report, but was restored to his former rank on 24th December, 1884.

He was on privilege leave from 26th February to 25th May, 1885, and during the rest of the year was attached to the Dehra Dún division.

There have been several officiating promotions and reversions during the year.

The staff of officers in the School Circle at the close of the year stood thus :—

Mr. W. R Fisher	...	Officiating Conservator and Director, Forest School.
Mr. E. McArthur Moir	...	Deputy Conservator of Forests, 3rd grade, in charge of the Jaunsár and Tons divisions.
Mr. A. Smythies	...	Officiating Instructor, Forest School, in charge of Dehra Dún division.

Mr. N. Hearle	... Officiating Deputy Conservator of Forests, 4th grade, on deputation to Central Circle.
Mr. A. E. Broun	... Assistant Conservator of Forests, 1st grade, in charge of the Sahâranpur division.
Mr. M. H. Clifford	... Assistant Conservator of Forests, 1st grade, on deputation to Oudh Circle.
Mr. A. G. Hobart-Hampden	... Assistant Conservator of Forests, 3rd grade, attached to Jaunsâr division.
Babu Kurunâ Nidhan Mukerji,	Sub-Assistant Conservator of Forests, 2nd grade, attached to Dehra Dûn division.

Messrs. Clifford, Hobart-Hampden, and Babu K. N. Mukerji all passed the higher standard in Urdu and Nagri and the two former in Forest Law in the general departmental examination held in Meerut last October, no separate notification of their having passed in Land-revenue having been issued by the Local Government, though it is presumed that the term Forest Law included this as both subjects were given in the same paper. I have to acknowledge the zeal and intelligence with which the officers in the circle have assisted in the work of the year, which has been in many ways a successful one. Mr. Harington, the Collector of Sahâranpur, writes that he thinks very highly of Mr. Broun's work and has found it a pleasure to do business with him.

I must here remark, however, that all the divisional reports except that of the Jaunsâr division were received late, especially Mr. Hobart-Hampden's report on the Tons division, which reached my office on the 11th July.

The recent extensive frauds detected in the Oudh forests have shown that the venality of the forest protective staff is not confined to the School Circle, though the notice of Government was first drawn to the question in my last report.

It may be also noted, with reference to a remark in the Government Resolution on last year's report, that though the controlling staff in the School Circle is necessarily strong during the monsoon, when theoretical instruction of the School is going on, yet during the rest of the year there has only been one officer in each division, the others being on deputation to other circles, and that we have only one Sub-Assistant Conservator and one Ranger belonging to the executive staff for the whole circle.

4. *Subordinates of the Circle attending the Forest School.*—Harsarûp, of Meerut, and Sada Nand, Forest Apprentices, obtained the Ranger's certificate in January, 1885, the former with honors, and he was bracketed first in the school, and obtained the prize for Mathematics, and also divided with other students the Director's prize for general proficiency and Mr. Moirs' as well as the Government prize for theoretical forestry. He was appointed a Ranger in the Dehra Dûn division on Rs. 50 from 1st January, 1885.

Sada Nand came out seventh in the list of 18 students, and was appointed a Forester on Rs. 40 in the Jaunsâr division on the 1st March, 1885, on his return from privilege leave, and his work has been favourably reported on by Mr. Moir.

Of the other subordinates of the circle attending classes at the Forest School—

Harsarûp, of Fyzabad, a temporary Forester in the Direction division, failed to obtain the Rangers' certificate, and was remanded for another year.

Keshavanand, also a temporary Forester of the Dehra Dûn division, passed 1st amongst the junior students and obtained a prize for Sylviculture and also divided the prize for road-making with another student. He is still attached to the School, but should qualify for employment as a Ranger in January, 1886.

A very promising man, named Prokash Roy, Havildar School-master of IX. Bengal Cavalry, was appointed as Ranger in July, 1884, and attended a few classes at the School, but he resigned his appointment soon after the theoretical course had commenced and returned to his regiment.

Three of the subordinate staff attended the Foresters' course at the school.

The Foresters' certificate was granted in January, 1885, to Ram Narain and Nanac Chand, temporary Foresters in the Dehra Dûn division, who had failed to qualify for the Rangers' certificate in 1883.

His Honor Sir Alfred Lyall, has sanctioned the building of quarters for 64 students at the Forest School and works were commenced in the Forest School compound by Mr. Holme, C.E., Assistant Engineer, Meerut Provincial Division.

General account of the forests, main outlines of operations, and principal improvements called for.

5. The circle has yielded a surplus of Rs 93,162 as compared with deficits for the last three years. This is principally due to savings effected by the separation of the Forest School Budget from Provincial charges, and to the reduced cost of carriage of sleepers consequent on the termination of Mr. Winton's contract, as well as to an expansion of revenue in the Dún and Hill divisions.

6. *New establishments.*—Major Bailey's scheme for the new establishments to be provided for the circle has been somewhat modified, the number of Rangorships being reduced from 17 to 12, and some other changes proposed, but the scheme was not sent up for sanction to the Government of India before the close of the year, as the new lease of the Tihri Forests was only agreed to on 12th February, 1885, and it was thought that the reduced area of the leased forests would necessitate some changes in the establishments necessary for the circle.

It is confidently expected that an adequate permanent establishment will be provided in 1885-86.

7. *New lease of the Tihri Forests.*—The Tihri lease expired at the close of the last financial year, but was allowed by mutual agreement between the Raja and the Government to run on till the end of April, 1885. The terms of a new lease of the deodar forests near the Tons river and of the forests bordering on the Eastern Dún and the Ganges river, were agreed to by the Raja of Tihri and the forests in question are leased by Government for the next 20 years.

The Tihri deodar forests, other than those in the Tons valley, which have now been abandoned to the Raja are overburdened with rights, and are almost valueless for export except the Banál and Shikaru forests, which are somewhat remote from villages and might become valuable in the future. The now abandoned chír forests, however, comprise many fine blocks in the Jumna and Tons valleys, which are not required for local use, and a fine trade in chír timber is now developing so that it is a great pity that provisions for their retention by Government could not be insisted on.

All deodar forests retained by Government are to be at once demarcated and a schedule drawn up of their boundaries which will be appended to the lease.

The annual amount to be paid to the Raja of Tihri by the Jaunsár division has been fixed at Rs. 9,000 instead of Rs. 4,500 as before.

The same forest area, principally of mixed forest and bamboos, which was attached to the Dehra Dún division by the former lease, is retained under the new one being comprised under the term Shiopuri Forest, and the annual amount to be paid to the Raja is Rs. 3,000 instead of Rs. 1,500 formerly paid; but rights to all limestone and minor produce are now secured, to which our claim under the former lease was not by any means clear.

A re-valuation of the deodar forests in the Tons valley is being made, and there can be no doubt that the forests are fully worth the amount paid to the Raja, as they contain over 20,000 mature deodar trees worth at least Rs. 15 each as they stand. The leased forests attached to the Dún contain bamboos and some fine tracts of bákli and mixed lower hill forest, and a small area of chir; and from the sale of the standing trees and bamboos in them as well as the limestone, the lease money will be fully covered and a small balance will accrue to Government.

It is very important to keep up the forest growth on the hills to the north of the Eastern Dún, so as to protect the water-supply of the Jákhan Canal, and to prevent the Chandnáwar Rao from extending, and also to protect the forest on the steep slopes of lower parts of the Ganges valley for about ten miles above Rikhikesh.

8. *Bashahr leased forests.*—The forests on this side of the Sutlej water-parting in Bashahr, held under a perpetual lease by the Panjáb Government from the Raja,

which were attached to the School Circle, North-Western Provinces, under orders of the Government of India, were carefully inspected by myself and Mr. Moir in May and June, 1884, and it is evident that excepting one block of kail forest, that there is hardly any timber available for export, whilst the few small patches of deodar are required for local uses for the comparatively large and industrious population of this part of the country, whilst a block of kail and fir forest at Shele should be carefully preserved for fuel-supply to the local iron works. Mr. Moir has roughly demarcated the areas which should be reserved and has drawn up a report, which has been sent to the Panjáb Government for orders.

It is clear that these Provinces have no interest in the Bashahr forests, which are solely of local importance, and that a considerable saving of time would accrue to the Jaunsár Divisional Officer if they were handed back to the Panjáb Government, which is their proper custodian. They were only taken over by us on account of their supposed resources in deodar for export, which has now been proved to be illusory.

9. *Leases of minor produce.*—Dead wood and minor forest produce were leased in the Dehra Dún and Sáháranpur forests as in former years, but a clause was inserted in the case of the Dún forests that no standing dead trees should be felled until they had been marked by the forest subordinates. Mr. Smythies states that this could not be fully carried out, owing to the heavy duties of the establishment.

A lessee of fallen dry wood in Phandowala felled 116 green trees, for which compensation of Rs. 348 was taken under section 67 of the Forest Act, as the evidence against the lessee was not sufficient to ensure a conviction.

The fraudulent lessees of the Nágsidh forest referred to in last year's report were convicted and sentenced to six months' rigorous imprisonment, which was confirmed on appeal by the Sessions Judge and the High Court.

Their main defence was that the word *khushk* used in the lease meant *withered* as opposed to dry, and their pleader argued at great length that they were perfectly entitled to fell and remove dying trees as well as dead ones.

Mr. Broun advocates the rawannah system for standing dead wood and bamboos as opposed to the lease system, and makes the following remarks :—

Take, for example, the export of dry standing timber : lessees try to evade the term of the agreement as much as possible.

If a tree is half dry, *i.e.*, green up to say 5 or 6 feet above the ground and dry above, they will cut the dry wood above, and leave in the ground a stump which is absolutely of no use Often, too, in a case like this, they cut the tree near the base to save themselves the trouble of climbing up, then cut off the green part leaving it to lie in the forest and take away the dry portion. As the lessees give rawannahs for fuel their answer is invariably that the rawannah-holders committed the offence. They can only, before a court, be civilly responsible for damage done, and compensation taken too often finishes by frightening away competitors from the next auction.

As for the bamboos, the case is similar. As the lessee has only a limited time to export his bamboo, he naturally wants to get as much out as he can. He therefore gives so much a score to the bamboo cutters, and those wanting to cut as many scores as possible during each day, so as to earn more money, hack away right and left, often installing themselves on the top of the clumps and cutting only the upper ends off. After they leave it there remains only a mutilated bush with jagged clumps 6 to 8 feet long. Usually these clumps which have been cut die down to the ground within a year or two, and when the cutters come again after a couple of years they find each clump surrounded by a dry natural fence which prevents them getting at the new clumps, and obliges them to cut the bamboo in the old way.

Experience has shown us that leasing standing dead wood over large areas almost invariably gives rise to fraud, and during the ensuing year as far as timber is concerned only *fallen* dead wood will be included in the leases, whilst for bamboos, sales by rawannahs will be gradually introduced, and leases of grass, gum, limestone and other minor produce will be continued as before.

The proceeds of the leases have shown a considerable falling off both in the Dún and Sáháranpur districts since last year, the figures being :—

1883-84	Dún ...	Rs. 13,260
	Sáháranpur	„ 20,976
1884-85	Dún	„ 8,781
	Sáháranpur ...	„ 16,739

This is said by the Divisional Officers to be due in the Dún to a less area being leased, and in Sahárunpur to the bamboo blocks leased being less rich than in the previous year.

The leases of limestone and drift-wood in the ruos in the Dún have produced Rs. 5,236, or Rs. 826 more than in the previous year, and owing to the increased demand for lime many neighbouring proprietors are claiming the river beds adjacent to their properties and now included in the Government forest area.

Besides the revenue obtained for the limestone, a fair amount of revenue is obtained for green fuel from inferior trees supplied for the kilns, which would not otherwise find a market.

10. *New grazing rules.*—In last year's report the new rules for the grazing of outsiders were referred to, but owing to some oversight they were not given in an appendix as stated in paragraph 34, and as they are of general interest they have been appended to the present report. They have worked well in the plains divisions.

Mr. Broun states that Chamba shepherds passing along the Khara-Hardwár road do considerable damage by lopping trees for fodder for their flocks, but it is a question whether they might not be allowed to lop certain inferior species without injury to the forests, as goats do not, as a rule, eat herbage and prefer woody plants.

11. *Gujars' buffaloes.*—As stated in last year's report, the unrestricted admission of Gujars' buffaloes to graze in the hills from March to October has caused great discontent amongst the villagers, whose fields they trample down and whose grazing grounds they interfere with.

A villager was murdered by the Gujars in the Tons valley, and the men accused, after arrest by the revenue officials, managed to escape, and the knowledge of this greatly increased the animus against the Gujars amongst the hill men, and a very strong and general feeling against the admission of the Gujars to graze was shown by the Bashahris at the time of the Conservator's inspection in June, 1884.

The provision of suitable grazing grounds for the Gujars is rendered more difficult, as from fear of man-eating tigers, they will not settle in Báwar or in the Tons valley, where the population is scanty.

Under these circumstances it was proposed, in a joint memorandum by Mr. Ross, C.S., Mr. Baker, C.S., the Superintendent of the Dún, and myself, that the numbers of the Gujars' buffaloes should be limited to those required by the Chakráta Cantonment Magistrate, as well as 150 others for Jaunsar, and 500 for Bashahr, and that the latter should proceed to Bashahr *viâ* the Tons valley and Jubal, and not through Jaunsár at all; and that a police guard should be stationed at the Sangota bridge over the Tons to enforce the rules.

Orders of Government were issued approving these proposals and charging the cost of police guard to the Forest Department, and in consequence of these orders Mr. Moir issued passes for a limited number of buffaloes, *viz.*, 150 for Jaunsár and 500 for Bashahr, and wished to stop all others proceeding up the Tons valley at the Sangota bridge.

As, however, the police were only to prevent damage in Jaunsár and had no power to stop the herds of buffaloes for which Mr. Moir had refused passes, little good has resulted except to the Jaunsáris, the Bashahris having had to provide grazing for much larger herds than they wish to admit to their grazing grounds.

It is evident that the only way to prevent the overcrowding of the grazing ground is to stop the excess numbers at the Sangotá bridge and send them back to the plains and probably legislation to empower the police to do this may be necessary.

The same joint memorandum which refers to the Gujars' grazing, and is published in an appendix, deals with the rights to forest produce of the Jaunsáris, regarding the exercise of which some dispute had arisen during the progress of the recent lands revenue settlement; especially as regards the marking of right-holders' timber by

forest subordinates of which the Jaunsáris complained. In order to meet the wishes of the Jaunsáris in this respect the memorandum prescribes that in all khatts or mauzas, except 13 near Chakráta, where inferior wood is valuable for the fuel-supply of the cantonment, the villagers may cut their annual allotment of inferior trees when and where they like. In the above 13 khatts the right-holders' trees will be marked in October by the Forest Officer, and all valuable timber, such as deodar, pines, and firs, wherever taken, will also be duly marked by him.

The use of the axe for hewing up planks from deodar is forbidden to right-holders, who in future are to saw up their planks, and thus a great waste of timber is prevented.

It is also prescribed that no further area of second class forest near Chakráta, where a considerable area is now closed to grazing, can be similarly closed unless a corresponding area be opened.

12. *Amended grazing rules for villagers in the Dún and Saháranpur divisions.*—As regards the proposed revision of the grazing rules for villagers in the Dún and Saháranpur divisions, Major Bailey's draft rules, as amended by the Board of Revenue, were sanctioned by Government in January last. The amended rules are given in an appendix and provide for a settlement of the grazing dues for each village by a payment fixed for three years leased on an enumeration of the cattle in each village.

If the lambardár of each village will be responsible for the collection, he will receive 5 per cent. of the dues: if not, only 2½ per cent. for the trouble of collection, and any arrears will be recovered by the Magistrate of the district as in the case of arrears of land-revenue.

As only a fixed number of cattle in each privileged village is entitled to pay dues at a lower rate, and this allowed the lambardárs to assess some of the villagers higher than others whom they favoured, it is now provided that an average rate intermediate to the full and privilege rates be paid alike by all graziers in the villages.

Head-loads of dry wood for fuel are now given free to all villagers who pay grazing dues. An attempt was made by the Settlement Officer to allow the number of privileged villages and cattle to increase according to the increase of cattle in the Dún, but His Honor Sir Alfred Lyall decided that "the villagers should not have the right of expanding their requirements unlimitedly, as the forests cannot stand unlimited grazing; and the general public, whose supplies of timber are daily becoming more scarce and dear, have claims on the Government, which have to be considered as well as those of the villagers adjoining the forests."

Although there has been no formal inquiry into the rights of the people in the Dún and Saháranpur forests, yet their privileges have been duly recorded in the settlement papers, and are in no way overburdensome on the forests, and it has been plainly laid down by Government that no new rights can accrue in the reserved forest of the circle.

13. *Auction sale of forest produce.*—It has been found convenient to sell standing trees to purchasers by public auction in the middle of August of each year from all the divisions of the circle as well as the leases of dead wood and minor produce, and the past year's sales held at Dehra were very well attended.

Divisional Officers prepare lists of the produce to be sold during the year, and a general list for the circle is drawn up in the Direction office, and advertised in the local papers, and printed lists are distributed to the neighbouring District Officers to be posted up at their kutcherries and thánahs, and are also sent to people likely to attend the sales, and in this way the annual sales in the School Circle have become a regular institution and attract numbers of traders from a distance.

14. *Termination of Mr. Winton's floating contract.*—The circle has been freed from a great incubus by the termination of Mr. Winton's contract for floating sleepers, as the last of the Raiengarh sleepers have been floated to Delhi. For years,

Mr. Winton has been making excessive profits for this work, and the savings secured this year by floating sleepers departmentally are estimated by Mr. Moir at Rs. 23,000. In fact, Mr. Winton charged 4 annas to Dákhpathar and 6 annas from there to Delhi for each sleeper floated, whilst the cost this year has been 1 anna 3½ pies only for the former floating and two annas for the latter, showing a total saving of 6 annas eight and a half pies per sleeper, or over Rs. 20,000 for a batch of 50,000.

As this is the first year of departmental floating, and there was a cholera scare which made labour scarce, and a very heavy flood, both of which causes materially increased the expense by stranding hundreds of sleepers at a distance from the river whence they were collected and brought back to the stream by coolies; it is probable that a still further reduction can be made next year.

The Deota sledge road, 6,116′ long, was completed last August at a cost of Rs. 3,598, and was used most successfully for the carriage of sleepers, resulting in a saving of about 8 pies for each sleeper conveyed this year by the sledge road, and it should be remembered that every anna saved in a batch of 50,000 sleepers is Rs. 3,125, so that as about 1½ lakhs sleepers more will pass over the sledge road, the total saving will reach a considerable figure. It is also very important to save manual labor in these remote forests independently of its direct cost.

Diagrams, plans, and sections of the sledges and sledge way are given, from which its nature can be judged, and more details regarding it will be found in Chapter III, paragraph 61.

As it is now clear that the deodar forests of the Tons valley can supply cheap sleepers for the Baroda and Central India Railway with which the Rajputana Railway is now amalgamated, and I have been informed by the Agent that the probable requirements of that Company will be 1,75,000 sleepers per annum for the next three years, it is a question whether Mr. Brandis' proposed plan of acquiring by lease the other important deodar forests in the valley of the Tons should not be carried out, as these forests will probably be ruined if left in private hands. The Railway Company might then, after obtaining cheap sleepers from private contractors during a few years, be driven to import expensive ones from Europe, and a great source of wealth to these Provinces would be irretrievably lost.

As an instance of the ruin of a deodar forest, that of the Dedra Gád, belonging to the Keuntal Raja, may be cited. This forest, formerly held by the Tihri Raja, was transferred to the Keuntal State in February, 1883, by the arbitration of the Superintendent of Panjáb Hill States, and the Keuntal Raja refused to lease it to the Forest Department, though liberal terms were offered him, and he then sold the trees standing at very inadequate rates to contractors. The latter twice allowed the forest to be burned, and, as Mr. Hearle now reports, a large area of it is a ghastly ruin of what was once a deodar forest.

15. *The state of the Jumna river.*—No arrangement has yet been come to with the Sirmúr Maharája regarding the control of the floating on the Jumna river in which he claims a share. He has been trying to strengthen his position by the purchase of an estate in Dehra Dún, on which our Dákhpathar depôt is situated, but I have been informed on good authority that, hearing that he would only have the ordinary rights of a zamíndár in the Dún, he has abandoned this idea.

The Tons road on the Sirmúr side of the Jumna river is still left unrepaired, and thefts have been very prevalent during the year. Over 500 sleepers were stolen, according to Mr. Hobart-Hampden, out of a batch of 27,000 Government sleepers floated down in January last, whilst we have no statistics as to the number of sleepers stolen from private parties.

I quote as follows from Mr. Hobart-Hampden's report:—

There is not the least doubt that the amount of sleeper theft is enormous. The temptation is very great, as in floating sleepers the gang of mallahs must do their work at the sweep or hinder part of the batch, and the nature of the stream is such that the foremost sleepers float away ahead for many miles and strand in large numbers.